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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCI)

(51) International Patent Classification 7:		(11) International Publication Number:	WO 00/40749
C12Q 1/68	A2	(43) International Publication Date:	13 July 2000 (13.07.00)
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(21) International Application Number	er: PCT/CA00/00005
(22) International Filing Date:	5 January 2000 (05.01.00)
· ·	

(30) Priority Data:
60/115,125 6 January 1999 (06.01.99) US
09/477,148 4 January 2000 (04.01.00) US

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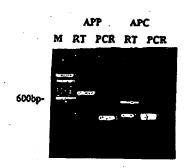
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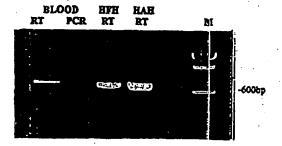
Without international search report and to be republished upon receipt of that report.

## (54) Title: METHOD FOR THE DETECTION OF GENE TRANSCRIPTS IN BLOOD AND USES THEREOF

#### (57) Abstract

The present invention is directed to detection and measurement of gene transcripts in blood. Specifically provided is a RT-PCR analysis performed on a drop of blood for detecting, diagnosing and monitoring diseases using tissue-specific primers. The present invention also describes methods by which delineation of the sequence and/or quantitation of the expression levels of disease-associated genes allows for an immediate and accurate diagnostic/prognostic test for disease or to assess the effect of a particular treatment regimen.





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## METHOD FOR THE DETECTION OF GENE TRANSCRIPTS IN BLOOD AND USES THEREOF

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#### **BACKGROUND OF THE INVENTION**

## Cross-Reference to Related Application

This application claims the benefit of priority of provisional patent application U.S. Serial Number 60/115,125, filed January 6, 1999 and of a U.S. application entitled "Method for the Detection of Gene Transcripts in Blood and uses Thereof" filed on January 4, 2000 (application number not yet assigned).

## Field of the Invention

The present invention relates generally to the molecular biology of human diseases. More specifically, the present invention relates to a process using the genetic information contained in human peripheral whole blood for the diagnosis, prognosis and monitoring of genetic and infectious disease in the human body.

## Description of the Related Art

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The blood is a vital part of the human circulatory system for the human body. Numerous cell types make up the blood tissue including monocytes, leukocytes, lymphocytes and erythrocytes. Although many blood cell types have been described, there are likely many as yet undiscovered cell types in the human blood. Some of these undiscovered cells may exist transiently, such as those derived from tissues and organs that are constantly interacting with the circulating blood in health and disease. Thus, the blood can provide an immediate picture of what is happening in the human body at any given time.

The turnover of cells in the hematopoietic system is enormous. It was reported that over one trillion cells, including 200 billion erythrocytes and 70 billion neutrophilic leukocytes, turn over each day in the human body (Ogawa 1993). As a consequence of continuous interactions between the blood and the body, genetic changes that occur within the cells or tissues of the body will trigger specific changes in gene expression within blood. It is the goal of the present invention that these genetic alterations be harnessed for diagnostic and prognostic purposes, which may lead to the development of therapeutics for ameliorating disease.

The complete profile of gene expression in the circulating blood remains totally unexplored. It is hypothesized that gene expression in the blood is reflective of body state and, as such, the resultant disruption of homeostasis under conditions of disease can be detected through analysis of transcripts differentially expressed in the blood alone. Thus, the identification of several key transcripts or genetic markers in blood will provide information about the genetic state of the cells, tissues, organs and systems of the human body in health and disease.

The prior art is deficient in non-invasive methods of screening for tissue-specific diseases. The present invention fulfills this long-standing need and desire in the art.

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## SUMMARY OF THE INVENTION

This present invention discloses a process of using the genetic information contained in human peripheral whole blood in the diagnosis, prognosis and monitoring of genetic and infectious disease in the human body. The process described herein requires a simple blood sample and is, therefore, non-invasive compared to conventional practices used to detect tissue specific disease, such as biopsies.

One object of the present invention is to provide a non-invasive method for the diagnosis, prognosis and monitoring of genetic and infectious disease in humans and animals.

In one embodiment of the present invention, there is provided a method for detecting expression of a gene in blood from a subject, comprising the steps of: a) quantifying RNA from a subject blood sample; and b) detecting expression of the gene in the quantified RNA, wherein the expression of the gene in quantified RNA indicates the expression of the gene in the subject blood.

In another embodiment of the present invention, there is provided a method for detecting expression of one or more genes in blood from a subject, comprising the steps of: a) obtaining a subject blood sample; b) extracting RNA from the blood sample; c) amplifying the RNA; d) generating expressed sequence tags (ESTs) from the amplified RNA product; and e) detecting expression of the genes in the ESTs, wherein the expression of the genes in the ESTs indicates the expression of the genes in the subject blood. Preferably, the genes are tissue-specific genes.

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In still another embodiment of the present invention, there is provided a method for detecting expression of one or more genes in blood from a subject, comprising the steps of: a) obtaining a subject blood sample; b) extracting DNA fragments from the blood sample; c) amplifying the DNA fragments; and d) detecting expression of the genes in the amplified DNA product, wherein the expression of the genes in the subject blood.

In yet another embodiment of the present invention, there is provided a method for monitoring a course of a therapeutic treatment in an individual, comprising the steps of: a) obtaining a blood sample from the individual; b) extracting RNA from the blood sample; c) amplifying the RNA; d) generating expressed sequence tags (ESTs) from the amplified RNA product; e) detecting expression of genes in the ESTs, wherein the expression of the genes is associated with the effect of

the therapeutic treatment: and f) repeating steps a)-e), wherein the course of the therapeutic treatment is monitored by detecting the change of expression of the genes in the ESTs. Such a method may also be used for monitoring the onset of overt symptoms of a disease, wherein the expression of the genes is associated with the onset of the symptoms.

In still yet another embodiment of the present invention, there is provided a method for diagnosing a disease in a test subject, comprising the steps of:

a) generating a cDNA library for the disease from a whole blood sample from a normal subject; b) generating expressed sequence tag (EST) profile from the normal subject cDNA library; c) generating a cDNA library for the disease from a whole blood sample from a test subject; d) generating EST profile from the test subject cDNA library; and e) comparing the test subject EST profile to the normal subject EST profile, wherein if the test subject EST profile differs from the normal subject EST profile, the test subject might be diagnosed with the disease.

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In still yet another embodiment of the present invention, there is provided a kit for diagnosing, prognosing or predicting a disease, comprising: a) gene-specific primers; wherein the primers are designed in such a way that their sequences contain the opposing ends of two adjacent exons for the specific gene with the intron sequence excluded; and b) a carrier, wherein the carrier immobilizes the primer(s). Such a kit may be applied to a test subject whole blood sample to diagnose, prognose or predict a disease.

In yet another embodiment of the present invention, there is provided a kit for diagnosing, prognosing or predicting a disease, comprising: a) probes derived from a whole blood sample for a specific disease; and b) a carrier, wherein the carrier immobilizes the probes. Such a kit may be applied to a test subject whole blood sample to diagnose, prognose or predict a disease.

Furthermore, the present invention provides a cDNA library specific for a disease, wherein the cDNA library is generated from whole blood samples.

Other and further aspects, features, and advantages of the present invention will be apparent from the following description of the presently preferred embodiments of the invention. These embodiments are given for the purpose of disclosure.

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#### BRIEF DESCRIPTION OF THE DRAWINGS

So that the matter in which the above-recited features, advantages and objects of the invention, as well as others which will become clear, are attained and can be understood in detail, more particular descriptions of the invention briefly summarized above may be had by reference to certain embodiments thereof which are illustrated in the appended drawings. These drawings form a part of the specification. It is to be noted, however, that the appended drawings illustrate preferred embodiments of the invention and therefore are not to be considered limiting in their scope not be considered to limit the scope of the invention.

Figure 1 shows the following RNA samples prepared from human blood; Figure 1A: Lane 1, Molecular weight marker; Lane 2, RT-PCR on APP gene; Lane 3, PCR on APP gene; Lane 4, RT-PCR on APC gene; Lane 5, PCR on APC gene; Figure 1B: Lanes 1 and 2, RT-PCR and PCR of βMyHC, respectively; Lanes 3 and 4, RT-PCR of βMyHC from RNA prepared from human fetal and human adult heart, respectively; Lane 5, Molecular weight marker.

Figure 2 shows quantitative RT-PCR analysis performed on RNA samples extracted from a drop of blood. Forward primer (5'-GCCCTCTGGGGACCTGAC-3', SEQ ID No. 1) of exon 1 and reverse primer (5'-CCCACCTGCAGGTCCTCT-3", SEQ ID No. 2) of exons 1 and 2 of insulin gene. Blood samples of 4 normal subjects were assayed. Lanes 1, 3, 5 and 7 represent overnight "fasting" blood sample and lanes 2, 4, 6 and 8 represent "non-fasting" samples.

Figure 3 shows quantitative RT-PCR analysis performed on RNA samples extracted from a drop of blood. Lanes 1 and 2 represent normal healthy person and lane 3 represents late-onset diabetes (Type II) and lane 4 represents asymptomatic diabetes.

Figure 4 shows multiple RT-PCR assay in a drop of blood. Primers were derived from insulin gene (INS), zinc-finger protein gene (ZFP) and house-keeping gene (GADH). Lane 1 represents normal person. Lane 2 represents late-onset diabetes and lane 3 represents asymptomatic diabetes.

Figure 5 shows standardized levels of insulin gene (Figure 5A) and ZFP gene (Figure 5B) expressed in a drop of blood. The first three subjects were normal, second two subjects showed normal glucose tolerance, and the last subject had late onset diabetes type II. Figure 5C shows standardized levels of insulin gene expressed in each fractionated cell from whole blood.

Figure 6 shows the differential screening of human blood cell cDNA library with different cDNA probes of heart and brain tissue. Figure 6A shows blood cell cDNA probes vs. adult heart cDNA probes. Figure 6B shows blood cell cDNA probes vs. human brain cDNA probes.

Figure 7 graphically shows the 1,800 unique genes in human blood and in the human fetal heart grouped into seven cellular functions.

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#### DETAILED DESCRIPTION OF THE INVENTION

In accordance with the present invention, there may be employed conventional molecular biology, microbiology, and recombinant DNA techniques within the skill of the art. Such techniques are explained fully in the literature. See, e.g., Sambrook, Fritsch & Maniatis, "Molecular Cloning: A Laboratory Manual (1982); "DNA Cloning: A Practical Approach," Volumes I and II (D.N. Glover ed. 1985); "Oligonucleotide Synthesis" (M.J. Gait ed. 1984); "Nucleic Acid

Hybridization" [B.D. Hames & S.J. Higgins eds. (1985)]; "Transcription and Translation" [B.D. Hames & S.J. Higgins eds. (1984)]; "Animal Cell Culture" [R.I. Freshney, ed. (1986)]; "Immobilized Cells And Enzymes" [IRL Press, (1986)]; B. Perbal, "A Practical Guide To Molecular Cloning" (1984). Therefore, if appearing herein, the following terms shall have the definitions set out below.

A "cDNA" is defined as copy-DNA or complementary-DNA, and is a product of a reverse transcription reaction from an mRNA transcript. "RT-PCR" refers to reverse transcription polymerase chain reaction and results in production of cDNAs that are complementary to the mRNA template(s).

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The term "oligonucleotide" is defined as a molecule comprised of two or more deoxyribonucleotides, preferably more than three. Its exact size will depend upon many factors which, in turn, depend upon the ultimate function and use of the oligonucleotide. The term "primer" as used herein refers to an oligonucleotide, whether occurring naturally as in a purified restriction digest or produced synthetically, which is capable of acting as a point of initiation of synthesis when placed under conditions in which synthesis of a primer extension product, which is complementary to a nucleic acid strand, is induced, i.e., in the presence of nucleotides and an inducing agent such as a DNA polymerase and at a suitable temperature and pH. The primer may be either single-stranded or double-stranded and must be sufficiently long to prime the synthesis of the desired extension product in the presence of the inducing agent. The exact length of the primer will depend upon many factors, including temperature, source of primer and the method used. For example, for diagnostic applications, depending on the complexity of the target sequence, the oligonucleotide primer typically contains 15-25 or more nucleotides. although it may contain fewer nucleotides. The factors involved in determining the appropriate length of primer are readily known to one of ordinary skill in the art.

As used herein, random sequence primers refer to a composition of primers of random sequence, i.e. not directed towards a specific sequence. These

sequences possess sufficient complementary to hybridize with a polynucleotide and the primer sequence need not reflect the exact sequence of the template.

"Restriction fragment length polymorphism" refers to variations in DNA sequence detected by variations in the length of DNA fragments generated by restriction endonuclease digestion.

A standard Northern blot assay can be used to ascertain the relative amounts of mRNA in a cell or tissue obtained from plant or other tissue, in accordance with conventional Northern hybridization techniques known to those persons of ordinary skill in the art. The Northern blot uses a hybridization probe, e.g. radiolabelled cDNA, either containing the full-length, single stranded DNA or a fragment of that DNA sequence at least 20 (preferably at least 30, more preferably at least 50, and most preferably at least 100 consecutive nucleotides in length). The DNA hybridization probe can be labelled by any of the many different methods known to those skilled in this art. The labels most commonly employed for these studies are radioactive elements, enzymes, chemicals which fluoresce when exposed to untraviolet light, and others. A number of fluorescent materials are known and can be utilized as labels. These include, for example, fluorescein, rhodamine, auramine, Texas Red, AMCA blue and Lucifer Yellow. A particular detecting material is antirabbit antibody prepared in goats and conjugated with fluorescein through an isothiocyanate. Proteins can also be labeled with a radioactive element or with an enzyme. The radioactive label can be detected by any of the currently available counting procedures. The preferred isotope may be selected from <sup>3</sup>H, <sup>14</sup>C, <sup>32</sup>P, <sup>35</sup>S, <sup>36</sup>Cl, <sup>51</sup>Cr, <sup>57</sup>Co, <sup>58</sup>Co, <sup>59</sup>Fe, <sup>90</sup>Y, <sup>125</sup>I, <sup>131</sup>I, and <sup>186</sup>Re. Enzyme labels are likewise useful, and can be detected by any of the presently utilized colorimetric, spectrophotometric, fluorospectrophotometric, amperometric gasometric techniques. The enzyme is conjugated to the selected particle by reaction with bridging molecules such as carbodiimides, diisocyanates, glutaraldehyde and the like. Many enzymes which can be used in these procedures are known and can be utilized.

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The preferred are peroxidase,  $\beta$ -glucuronidase,  $\beta$ -D-glucosidase,  $\beta$ -D-galactosidase, urease, glucose oxidase plus peroxidase and alkaline phosphatase. U.S. Patent Nos. 3,654,090, 3,850,752, and 4,016,043 are referred to by way of example for their disclosure of alternate labeling material and methods.

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As used herein, "individual" refers to human subjects as well as non-human subjects. The examples herein are not meant to limit the methodology of the present invention to human subjects only, as the instant methodology is useful in the fields of veterinary medicine, animal sciences and such.

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In one embodiment of the present invention, there is provided a method for detecting expression of a gene in blood from a subject, comprising the steps of: a) quantifying RNA from a subject blood sample; and b) detecting expression of the gene in the quantified RNA, wherein the expression of the gene in quantified RNA indicates the expression of the gene in the subject blood. An example of the quantifying method is by mass spectrometry.

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In another embodiment of the present invention, there is provided a method for detecting expression of one or more genes in blood from a subject, comprising the steps of: a) obtaining a subject blood sample; b) extracting RNA from the blood sample; c) amplifying the RNA; d) generating expressed sequence tags (ESTs) from the amplified RNA product; and e) detecting expression of the genes in the ESTs, wherein the expression of the genes in the ESTs indicates the expression of the genes in the subject blood. Preferably, the subject is a fetus, an embryo, a child, an adult or a non-human animal. The genes are non-cancer-associated and tissue-specific genes. Still preferably, the amplification is performed by RT-PCR using random sequence primers or gene-specific primers.

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In still another embodiment of the present invention, there is provided a method for detecting expression of one or more genes in blood from a subject, comprising the steps of: a) obtaining a subject blood sample; b) extracting DNA fragments from the blood sample; c) amplifying the DNA fragments; and d) detecting

expression of the genes in the amplified DNA product, wherein the expression of the genes in the amplified DNA product indicates the expression of the genes in the subject blood.

In yet another embodiment of the present invention, there is provided a method for monitoring a course of a therapeutic treatment in an individual, comprising the steps of: a) obtaining a blood sample from the individual; b) extracting RNA from the blood sample, c) amplifying the RNA; d) generating expressed sequence tags (ESTs) from the amplified RNA product; e) detecting expression of genes in the ESTs, wherein the expression of the genes is associated with the effect of the therapeutic treatment; and f) repeating steps a)-e), wherein the course of the therapeutic treatment is monitored by detecting the change of expression of the genes in the ESTs. Such a method may also be used for monitoring the onset of overt symptoms of a disease, wherein the expression of the genes is associated with the onset of the symptoms. Preferably, the amplification is performed by RT-PCR, and the change of the expression of the genes in the ESTs is monitored by sequencing the ESTs and comparing the resulting sequences at various time points; or by performing single nucleotide polymorphism analysis and detecting the variation of a single nucleotide in the ESTs at various time points.

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In still yet another embodiment of the present invention, there is provided a method for diagnosing a disease in a test subject, comprising the steps of:

a) generating a cDNA library for the disease from a whole blood sample from a normal subject; b) generating expressed sequence tag (EST) profile from the normal subject cDNA library; c) generating a cDNA library for the disease from a whole blood sample from a test subject; d) generating EST profile from the test subject cDNA library; and e) comparing the test subject EST profile to the normal subject EST profile, wherein if the test subject EST profile differs from the normal subject EST profile, the test subject might be diagnosed with the disease.

In still yet another embodiment of the present invention, there is provided a kit for diagnosing, prognosing or predicting a disease, comprising: a) genespecific primers; wherein the primers are designed in such a way that their sequences contain the opposing ends of two adjacent exons for the specific gene with the intron sequence excluded; and b) a carrier, wherein the carrier immobilizes the primer(s). Preferably, the gene-specific primers are selected from the group consisting of insulinspecific primers, atrial naturatic factor-specific primers, zinc finger protein genespecific primers, beta-myosin heavy chain gene-specific primers, amyloid precurser protein gene-specific primers, and adenomatous polyposis-coli protein gene-specific primers. Further preferably, the gene-specific primers are selected from the group consisting of SEQ ID Nos. 1 and 2; and SEQ ID Nos. 5 and 6. Such a kit may be applied to a test subject whole blood sample to diagnose, prognose or predict a disease by detecting the quantitative expression levels of specific genes associated with the disease in the test subject and then comparing to the levels of same genes expressed in a normal subject. Such a kit may also be used for monitoring a course of therapeutic treatment or monitoring the onset of overt symptoms of a disease.

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In yet another embodiment of the present invention, there is provided a kit for diagnosing, prognosing or predicting a disease, comprising: a) probes derived from a whole blood sample for a specific disease; and b) a carrier, wherein the carrier immobilizes the probes. Such a kit may be applied to a test subject whole blood sample to diagnose, prognose or predict a disease by detecting the quantitative expression levels of specific genes associated with the disease in the test subject and then comparing to the levels of same genes expressed in a normal subject. Such a kit may also be used for monitoring a course of therapeutic treatment or monitoring the onset of overt symptoms of a disease.

Furthermore, the present invention provides a cDNA library specific for a disease, wherein the cDNA library is generated from whole blood samples.

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The following examples are given for the purpose of illustrating various embodiments of the invention and are not meant to limit the present invention in any fashion.

## **EXAMPLE 1**

## Construction of a tDNA library

RNA extracted from human tissues (including fetal heart, adult heart, liver, brain, prostate gland and whole blood) were used to construct unidirectional cDNA libraries. The first mammalian heart cDNA library was constructed as early as 1982. Since then, the methodology has been revised and optimal conditions have been developed for construction of human heart and hematopoietic progenitor cDNA libraries (Liew et al., 1984; Liew 1993, Claudio et al., 1998). Most of the novel genes which were identified by sequence annotation can now be obtained as full length transcripts.

#### **EXAMPLE 2**

## Catalogue of blood cell ESTs

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Random partial sequencing of expressed sequence tags (ESTs) of cDNA clones from the blood cell library was carried out to establish an EST database of blood. The known genes as derived from the ESTs were categorized into seven major cellular functions (Hwang, Dempsey et al., 1997).

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## EXAMPLE 3

## Differential screening of cDNA library

cDNA probes generated from transcripts of each tissue were used to hybridize the blood cell cDNA clones (Liew et al., 1997). The "positive" signals which were hybridized with P-labelled cDNA probes were defined as genes which shared identity with blood and respective tissues. The "negative" spots which were not exposed to P-labelled cDNA probes were considered to be blood-cell-enriched or low frequency transcripts.

## **EXAMPLE 4**

## Reverse transcriptase-polymerase chain reaction (RT-PCR) assay

RNA extracted from samples of human tissue was used for RT-PCR analysis (Jin et al. 1990). Three pairs of forward and reverse primers were designed for human cardiac beta-myosin heavy chain gene (βMyHC), amyloid precurser protein (APP) gene and adenomatous polyposis-coli protein (APC) gene. The PCR products were also subjected to automated DNA sequencing to verify the sequences as derived from the specific transcripts of blood.

## **EXAMPLE 5**

## Detection of tissue specific gene expression in human blood using RT-PCR

The beta-myosin heavy chain gene (βMyHC) transcript (mRNA) is known to be highly expressed in ventricles of the human heart. This sarcomeric protein is important for heart muscle contraction and its presence would not be expected in other non-muscle tissues and blood. In 1990, the gene for human cardiac

βMyHC was completely sequenced (Liew et al. 1990) and was comprised of 4 exons and 42 introns.

The method of reverse transcription polymerase chain reaction (RT-PCR) was used to determine whether this cardiac specific mRNA is also present in human blood. A pair of primers was designed; the forward primer (SEQ ID No. 3) was on the boundary of exons 21 and 22, and the reverse primer (SEQ ID No. 4) was on the boundary of exons 24 and 25. This region of mRNA is only present in BMyHC and is not found in the alpha-myosin heavy chain gene ( $\alpha$ MyHC).

A blood sample was first treated with lysing buffer and then undergone centrifuge. The resulting pellets were further processed with RT-PCR. RT-PCR was performed using the total blood cell RNA as a template. A nested PCR product was generated and used for sequencing. The sequencing results were subjected to BLAST and the identity of exons 21 to 25 was confirmed to be from βMyHC (Figure 1A).

Using the same method just described, two other tissue specific genes - amyloid precursor protein (APP, forward primer, SEQ ID No. 7; reverse primer, SEQ ID No. 8) found in the brain and associated with Alzheimer's disease, and adenomatous polyposis coli protein (APC) found in the colon and rectum and associated with colorectal cancer (Groden *et al.* 1991; Santoro and Groden 1997) - were also detected in the RNA extracted from human blood (Figure 1B).

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#### **EXAMPLE 6**

#### Multiple RT-PCR analysis on a drop of blood from a normal/diseased individual

A drop of blood was extracted to obtain RNA to carry out quantitative RT-PCR analysis. Specific primers for the insulin gene were designed: forward primer (5'-GCCCTCTGGGGACCTGAC-3', SEQ ID No. 1) of exon 1 and reverse primer (5'-CCCACCTGCAGGTCCTCT-3", SEQ ID No. 2) of exons 1 and 2 of insulin gene. Such reverse primer was obtained by deleting the intron between the

exons 1 and 2. Blood samples of 4 normal subjects were assayed. It was found that the insulin gene is expressed in the blood and the quantitative expression of the insulin gene in a drop of blood is influenced by fasting and non-fasting states of normal healthy subjects (Figure 2). This very low level of expression of the insulin gene reflects the phenotypic status of a person and strongly suggests that there is a physiological and pathological role for its expression, contrary to the basal or illegitimate theory of transcription suggested by Chelly *et al.* (1989) and Kimoto (1998).

Same quantitative RT-PCR analysis was performed using insulin specific primers on RNA samples extracted from a drop of blood from a normal healthy person, a person having late-onset diabetes (Type II) and a person having asymptomatic diabetes. It was found that the insulin gene is expressed differentially amongst subjects that are healthy, diagnosed as type II diabetic, and also in an asymptomatic preclinical patient (Figure 3).

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Similarly, specific primers for the atrial natriuretic factor (ANF) gene were designed (forward primer, SEQ ID No. 5; reverse primer, SEQ ID No. 6) and RT-PCR analysis was performed on a drop of blood. ANF is known to be highly expressed in heart tissue biopsies and in the plasma of heart failure patients. However, atrial natriuretic factor was observed to be expressed in the blood and the expression of the atrial natriuretic factor gene is significantly higher in the blood of patients with heart failure as compared to the blood of a normal control patient.

Specific primers for the zinc finger protein gene (ZFP, forward primer, SEQ ID No. 9; reverse primer, SEQ ID No. 10) were also designed and RT-PCR analysis was performed on a drop of blood. ZFP is known to be high in heart tissue biopsies of cardiac hypertrophy and heart failure patients. In the present study, the expression of ZFP was observed in the blood as well as differential expression levels of ZFP amongst the normal, diabetic and asymptomatic preclinical subjects (Figure 4); although neither of the non-normal subjects has been specifically diagnosed as

suffering from cardiac hypertrophy and/or heart failure, the higher expression levels of the ZFP gene in their blood may indicate that these subjects are headed in that general direction.

It was hypothesized that a housekeeping gene such as glyceraldehyde dehydrogenase (GADH) which is required and highly expressed in all cells would not be differentially expressed in the blood of normal vs. disease subjects. This hypothesis was confirmed by RT-PCR using GADH specific primers (Figure 4). Thus, GADH is useful as an internal control.

Standardized levels of insulin gene or ZFP gene expressed in a drop of blood were estimated using a housekeeping gene as an internal control relative to insulin or ZFP expressed (Figures 5A & 5B). The levels of insulin gene expressed in each fractionated cell from whole blood were also standardized and shown in Figure 5C.

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## **EXAMPLE 7**

## Human blood cell cDNA library

In order to further substantiate the present invention, differential screening of the human blood cell cDNA library was conducted. cDNA probes derived from human blood, adult heart or brain were respectively hybridized to the human blood cDNA library clones. As shown in Figure 7, more than 95% of the "positively" identified clones are identical between the blood and other tissue samples.

DNA sequencing of randomly selected clones from the human whole blood cell cDNA library was also performed. This allowed information regarding the cellular function of blood to be obtained concurrently with gene identification. More than 20,000 expressed sequence tags (ESTs) have been generated and characterized to date, 17.6% of which did not result in a statistically significant match to entries in the

GenBank databases and thus were designated as "Novel" ESTs. These results are summarized in Figure 7 together with the seven cellular functions related to percent distribution of known genes in blood and in the fetal heart.

From 20,000 ESTs, 1,800 have been identified as known genes which may not all appear in the hemapoietic system. For example, the insulin gene and the atrial natriuretic factor gene have not been detected in these 20,000 ESTs but their transcripts were detected in a drop of blood, strongly suggesting that all transcripts of the human genome can be detected by performing RT-PCR analysis on a drop of blood.

In addition, approximately 400 novel genes have been identified from the 20,000 ESTs characterized to date, and these will be subjected to full length sequencing and open reading frame alignment to reduce the actual number of novel ESTs prior to screening for disease markers.

Analysis of the approximately 6,283 ESTs which have known matches in the GenBank databases revealed that this dataset represents over 1,800 unique genes. These genes have been catalogued into seven cellular functions. Comparisons of this set of unique genes with ESTs derived from human brain, heart, lung and kidney demonstrated a greater than 50% overlap in expression (Table 1).

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TABLE 1

## Overlap of Genes Expressed in Blood \*

•	Tissues	ESTs**	Overlap in Blood
	brain	134,000	60%
<b>25</b> . , ,	heart	65,000	59%
	lung	60,200	58%
	kidney 32	,300	54%

\* Estimated from limited known genes of about 1,800 as derived from the database of 6,297 ESTs from human blood cell library.

\*\* Obtained from the National Centre of Biotechnology Information (NCBI), U.S.A.

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#### **EXAMPLE 8**

## **Blood cell ESTs**

The results from the differential screening clearly indicate that the transcripts expressed in the whole blood are reflective of genes expressed in all cells and tissues of the body. More than 95% of detectable spots were identical from two different tissues. The remaining 5% of spots may represent cell- or tissue-specific transcripts; however, results obtained from partial sequencing to generate ESTs of these clones revealed most of them not to be cell- or tissue-specific transcripts. Therefore, the negative spots are postulated to be reflective of low abundance transcripts in the tissue from which the cDNA probes were derived.

An alternative approach that was employed to identify transcripts expressed at low levels is the large-scale generation of expressed sequence tags (ESTs). There is substantial evidence regarding the efficiency of this technology to detect previously characterized (known) and uncharacterized (unknown or novel) genes expressed in the cardiovascular system (Hwang & Dempsey et al., 1997). In the present invention, 20,000 ESTs have been produced from a human blood cell cDNA library and resulted in the identification of approximately 1,800 unique known genes (Table 2)

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In the most recent GenBank release, analysis of more than 300,000 ESTs in the database (dbESTs) generated more than 48,000 gene clusters which are thought to represent approximately 50% of the genes in the human genome. Only 4,800 of the dbESTs are blood-derived. In the present invention, 20,000 ESTs have

been obtained to date from a human blood cDNA library, which provides the world's most informative database with respect to blood cell transcripts. From the limited amount of information generated so far (i.e. 1,800 unique genes), it has already been determined that more than 50% of the transcripts are found in other cells or tissues of the human body (Table 2). Thus, it is expected that by increasing the number of ESTs generated, more genes will be identified that have an overlap in expression between the blood and other tissues. Furthermore, the transcripts for several genes which are known to have tissue-restricted patterns of expression (i.e.  $\beta$ MyHC, APP, APC, ANF, ZFP) have also been demonstrated to be present in blood.

Most recently, a cDNA library of human hematopoietic progenitor stem cells has also been constructed. From the limited set of 1,000 ESTs, there are at least 200 known genes that are shared with other tissue related genes (Claudio *et al.* 1998).

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Table 2 demonstrates the expression of known genes of specific tissues in blood cells. Previously, only the presence of "housekeeping" genes would have been expected. Additionally, the presence of at least 25 of the currently known 500 genes corresponding to molecular drug targets was detected. These molecular drug targets are used in the treatment of a variety of diseases which involve inflammation, renal and cardiovascular function, neoplastic disease, immunomodulation and viral infection (Drews & Ryser, 1997). It is expected that additional novel ESTs will represent future molecular drug targets.

## TABLE 2

# Comparison of 1,800 Unique Genes Identified in the Blood Cell cDNA Library to Genes Previously Identified in Specific Tissues

Gene Identification	No. of ESTs	Accession No.			Tiss	ue [	Distr	ribut	ion
	•		ВГ	1 Br	ТН			Lu	T
100 kDa coactivator	. 2	U22055		+	+	+	+-	+	}
10kD protein (BC10)	2	AF053470	<del>                                     </del>	+	++	╁	+	+	<u> </u>
14-3-3 epsilon	2	U54778	<del> </del>	+	+	+	<u> </u>	+	
14-3-3 protein	11	U28964	<del> </del>	+	+	╂	+	ļ. <u>`</u>	,
15 kDa selenoprotein (SE <b>P15</b> )	1	AF051894	<u> </u>	+	+		<del>                                     </del>	+	
1-phosphatidylinositol-4- phosphate 5-kinase isoform C	1	S78798						-	
23 kD highly basic protein	21	X56932	+	+	+	+	+	+	
2-5A-dependent RNase	1	L10381	<del> </del>	<del> </del>	<del>                                     </del>	+-	╁──	├	
2'-5'oligoadenylate synthetase 2 (OAS2)	4	M87284	В						
26S proteasome subunit 11	1	AF086708		1		+	┢	<del>                                     </del>	
36 kDa phosphothyrosine protein	2	AJ223280	. 1		+			<u> </u>	
3-7 gene product (non- exact 86%aa)	1 .	D64159						厂	:
3-phosphoglycerate dehydrogenase (PGAD)	1	AF006043		+	+			+	
3-prime-phosphoadenosine 5-prime-phosphosulfate synthase 1 (PAPSS1)	2	U53447	+	+	+	+		+	
46kd mannose 6- phosphate receptor (MPR46) (low match)	1	X56257							
5-aminoimidazole-4- carboxamide ribonucleotide transformylase	1 .	D89976	·						* .
5'-nucleotidase	3	D38524	. 1	+			+		
6-phosphofructo-2- kinase/fructose-2,6- biphosphatase 4 (PFKFB4)	1	D49818	•.	+					·
6-phosphofructo-2- kinase/fructose-2,6- bisphosphatase (PF2K)	1	AF041829		-					-
71 kd heat shock cognate protein hsc70	23	Y00371							
76 kDa membrane protein (P76)	2	U81006		+	+	+	+	+	
8-oxoguanine DNA glycosylase (OGG1)	1	U96710	В				+	+	
a disintegrin and metalloprotease domain 10 (ADAM10)	1	AF009615					+		
a disintegrin and metalloprotease domain 8 (ADAM8)	1	D26579	В	+					
À kinasé anchor protein 95 (AKAP95)	2	Y11997	B, T activated		+			+	
A kinase anchor protein, 149kD (AKAP149)	2	X97335		+	+	+		+	. ,

A4 differentiation-	1	U93305	·	T .	T	Τ	<u> </u>	Т	<del></del>
dependent protein (A4),				l	1		1	1 .	
triple LIM domain protein (LMO6), and		ļ	•	1	1		1	1	<b>1</b> ·
synaptophysin (SYP);		1		l		1	1	1	
calcium channel alpha-1				İ	1	1	1		
subunit (CACNA1F)	1			1	1		1		
ABL and putative M8604	1-1	U07561		<del>!</del>	┼	┼	┼	╀	<u> </u>
Met protein		00.00.		1 .	1		1		
Absent in melanoma 1	1 .	U83115	+	+	┼	┿	┼	+	<del> </del>
(AIM1)_	' '			1		1.	1	"	
accessory proteins	2	Z31696	· · ·	+	+	+	+	+	<del> </del>
BAP31/BAP29		1 .	1			1	ł	١.	1
(DXS1357E)		1				'	1 .	12	
acetyl-Coenzyme A	2	X12966	+	+	+	+	+	+	
acyltransferase (peroxisomal 3-oxoacyl-	•	•	ì	ŀ	1	1	1	1.	
Coenzyme A thiolase)			1	1	1 .		ľ	1	
(ACAA)	1		1 .	ŀ	l	1		1 .	•
acetyl-Coenzyme A	1	D88152	Thumaha ===			<del> </del>	_	ـــــ	
transporter (ACATN)	1	D00132	Tlymphoma	+	+	1	١.		
acidic 82 kDa protein	+ 4	U15552	<del> </del>	ļ	<u> </u>	+	-	-	ļ
acidic protein rich in		1			<u> </u>				<u></u>
leucines (SSP29)	1	Y07969	В	+	+		+	+	
Aconitase 2, mitochondrial	<del>                                     </del>	U80040	<del> </del>		<u> </u>	<u> </u>	<u> </u>		
(ACO2)	1	000040	+	+	+	+		+	
actin binding protein	1 - 1	AF059569	<del> </del>		ļ	-	<b>—</b>		
MAYVEN			1		l		1	1 .	[ · ·
actin, beta (ACTB)	158	X04098	Т. В	+	+	┡	+	├	
actin, beta (ACTB) (non-	1	M10277	1,5	·		↓	<u> </u>	L.	
exact, low match 73%)	' '	M 102//			ŀ		ı		
actin, gamma (low score)	1-7-	K00791				ļ		-	<u> </u>
actin, gamma 1 (ACTG1)	1			·					<u>.                                    </u>
	4	X04098	+	+	+	+	+	+	high in many libraries
actin-binding LIM protein	4	D31883		+	+	+		+	
(ABLIM)	4	1 .	1. 1				•	l	
Action olehod /ACTAIN	<del> </del>					I	L	L .	
Actinin, alpha 1 (ACTN1)	8	M95178		+	+	+	-	+	
actinin, alpha 4 (ACTN4)	8	M95178 D89980		+	+	+	+	+	
actinin, alpha 4 (ACTN4)			В	+		+	+		
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK)	1	D89980	В			+	+	+	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase	1	D89980	B +	+		+	+		
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4	1	D89980 L13738		+	+		+	+	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4)	1	D89980 L13738 X79805		+	+		+	+	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription	1	D89980 L13738		+	+		+	+	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1)	1	D89980 L13738 X79805		+ +	+		+	+	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription	1	D89980 L13738 X79805		+	+		+	+	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2)	1 1	D89980 L13738 X79805 X55544 X15875		+ +	+ +		+	+ +	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase II transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription	1	D89980 L13738 X79805		+ +	+ +			+	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element 867)	1 1	D89980 L13738 X79805 X55544 X15875		+ +	+ +		+	+ +	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase II transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription	1 1	D89980 L13738 X79805 X55544 X15875		+ +	+ +		+	+ +	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene	1 1	D89980 L13738 X79805 X55544 X15875 M86842	+	+ + +	+ + +	+	+	+ +	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene (ABR)	1 1 1 2	D89980 L13738 X79805 X55544 X15875		+ +	+ +		+	+ +	
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actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM)	1 1 2	D89980 L13738 X79805 X55544 X15875 M86842 U01147 U03254	+	+ + +	+ + +	+	+	+ +	
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actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH)	1 1 2 3 3 3	D89980 L13738 X79805 X55544 X15875 M86842 U01147 U03254 M16827 D43682 M62840	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + +	+	+ +	+ + +	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH) adaptin, delta (ADTD)	1 1 2 3 3 3 2	D89980 L13738 X79805 X55544 X15875 M86842 U01147 U03254 M16827 D43682	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + +	+	+ +	+ + +	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) adaptin, delta (ADTD) adaptin, delta (ADTD)	1 1 2 3 3 3	D89980 L13738 X79805 X55544 X15875 M86842 U01147 U03254 M16827 D43682 M62840	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + +	+ + +	
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actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) adaytin, delta (ADTD) adaptin, delta (ADTD) (non-exact 59%) adaptin, gamma (ADTG)	1 1 2 3 3 3 2	D89980 L13738 X79805 X55544 X15875 M86842 U01147 U03254 M16827 D43682 M62840 U91930	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	+	+ + +	+ + +	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) adaptin, delta (ADTD) adaptin, delta (ADTD) adaptin, gamma (ADTG) adaptor complex sigma3B	1 1 2 3 3 3 2 1	D89980 L13738 X79805 X55544 X15875 M86842 U01147 U03254 M16827 D43682 M62840 U91930 AC005328 Y12226	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + +	+	+ + +	+ + + + + + + + + + + + + + + + + + + +	
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actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene (ABR) active BCR-related gene (ABC) (ATF4) active BCR-related gene (ABC) (	1 1 1 2 1 1 2 3 3 3 2 1 1 1 1 1 1 1 1 1	D89980 L13738 X79805 X55544 X15875 M86842 U01147 U03254 M16827 D43682 M62840 U91930 AC005328 Y12226	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + +	+	+ + +	+ + + + + + + + + + + + + + + + + + + +	
actinin, alpha 4 (ACTN4) activated p21cdc42Hs kinase (ACK) activated RNA polymerase Il transcription cofactor 4 (PC4) activating transcription factor 1 (ATF1) activating transcription factor 2 (ATF2) activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) active BCR-related gene (ABR) active BCR-related gene (ABC) (ACTIVE BCR-related gene (ABC) (ACTIVE BCR-related gene (ABC) (ACTIVE BCR-related gene (ABC) (ACTIVE BCR-related gene	1 1 2 3 3 2 1 1 2 2	D89980 L13738 X79805 X55544 X15875 M86842 U01147 U03254 M16827 D43682 M62840 U91930 AC005328 Y12226 X99459	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + + + +	+	+ + +	+ + + + + + + + + + + + + + + + + + + +	

adducin 1 (alpha) (add1)	3	L29296	+ -	<del>.</del>	1 +	+	т—	1 +	T : -
adducin 3 (gamma) (ADD3)	3	U37122	B, W	+	+	<del>l</del>	+	+	
adenine nucleotide	2	M57424	+	+	+	ļ	<u> </u>	Ŀ	
translocator 2 (fibroblast) (ANT2)		14137424		•	*	-	+		}
adenine nucleotide	1	J02683	<del></del>	+	<del>                                     </del>	-		├	<del> </del>
translocator 2 (fibroblast) (ANT2) (non-exact 81%)									
adenine nucleotide translocator 2 (fibroblast)	1	J02683		<del>                                     </del>	_		$\vdash$	-	<u> </u>
(ANT2) (non-exact, 79%) adenine nucleotide					·		١.		
translocator 2 (fibroblast) (ANT2) (non-exact, 86%)	1	J02683			·				
adenine nucleotide	3	J03592	<del></del>	+	+	<del> </del>	+	+	
(ANT3)			1		, ,				
adenosine deaminase, RNA-specific (ADAR)	6	U18121		+	+		+	-	
adenylate cyclase 3 (ADCY3)	2	AF033861	1	+	+	+	+	+	
adenylate cyclase 7 (ADCY7)	1	D25538		-					
adenylate kinase 2 (AK2)	2	U39945		+	+	┝	+	+	
adenylate kinase 3 (AK3) (non-exact, 67%)	1	X60673							<u> </u>
adenylyl cyclase- associated protein (CAP)	28	M98474	T		+		+		
adipose differentiation- related protein; adipophilin (ADFP)	1	X97324			+		+	+	
ADP-ribosylation factor 1 (ARF1)	13	M84326	<del> </del>	+	+		+	+	· · · · · · · · · · · · · · · · · · ·
ADP-ribosylation factor 3 (ARF3)	- 2	M33384		+	+		+		·
ADP-ribosylation factor 4 (ARF4)	1	M36341	Tlymphoma	+	+			+	
ADP-ribosylation factor 5 (ARF5)	1	M57567			+	+	+	+	
ADP-ribosylation factor domain protein 1, 64kD (ARFD1)	1	: L04510		+		·			
ADP-ribosyltransferase (NAD+; poly (ADP-ribose) polymerase) (ADPRT)	4	M32721	+	.+	+	+	+	+	<del></del>
adrenergic, beta, receptor kinase 1 (ADRBK1)	2	X61157	В	+		寸	+		· · · · · · · · · · · · · · · · · · ·
adrenoleukodystrophy-like 1 (ALDL1)	1	AJ000327							
AE-binding protein 1 (AEBP1) (non-exact, 62%)	1	D86479				_	İ		-
AF-17	1	U07932			$\dashv$			-	
A-gamma-globin	1	V00514		-	<del>.  </del>		-		
A-gamma-globin (chromosome 11 allele)	1	J00176		-+	$\dashv$	+	$\dashv$	$\dashv$	
agammaglobulinaemia	1	U78027				$\dashv$	$\dashv$		<u> </u>
tyrosine kinase (ATK) AHNAK nucleoprotein		M80899							
(desmoyokin) (AHNAK) alanyi (membrane)	4		*	+	+	+			
aminopeptidase N	'	X13276	·		+		*		
aminopeptidase M, microsomal				•			-		
aminopeptidase, CD13, p150) (ANPEP)							•	.	
alcohol dehydrogenase 5 (class III), chi polypeptide (ADH5)	1	M29872				1	+	_	
aldehyde dehydrogenase	1	AF003341		+		$\dashv$	+	┿┤	
1, soluble (ALDH1)						.			

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							<u>.                                    </u>		
aldehyde dehydrogenase	2	U75286						Ì	
10 (fatty aldehyde dehydrogenase) (ALDH10)			ļ	1.					
aldehyde reductase 1 (low	3	J04795	- B	+	-	+	╀-	-	•
Km aldose reductase)		304733		*	+	T	+	1	
(ALDR1)		• • •		1		1	i	1	
aldo-keto reductase family	2	J04794	В	+	+	<del>                                     </del>	+	<del>                                     </del>	
1, member A1 (aldehyde			1			]	İ		
reductase) (AKR1A1)			<u>[</u>	'	İ	١.		ľ	
aldo-keto reductase family	1	D17793		+	+	+		+	
1, member C3 (3-alpha hydroxysteroid			1	ì		1 .	ł	l	
dehydrogenase, type II)						l		1	
(AKR1C3)			i	Į	i	٠.			
aldo-keto reductase family	1-1-	Y16675	<del></del>	+	+	⊢	+	+	<del></del>
7, member A2 (aflatoxin			•	1	'		-	l	
aldehyde reductase)	1.			ł		· ·		i	
(AKR7A2)		<u> </u>		<u>i</u>			L		
aldolase A, fructose- bisphosphate (ALDOA)	7	X12447		+	+		+		
aldolase C. fructose-	2	VOETOR		<del> </del>		L	<u> </u>	L	
bisphosphate (ALDOC)	2	X05196		+	+		+:	ļ	
alkaline phosphatase.	1	4502062	<del> </del> -	<del> </del>	-		├	<del> </del>	
liver/bone/kidney (ALPL)	1			1	1	1	l		
ALL-1 (=L04731;L04284	4	Z69780	<u> </u>	<del>                                     </del>	<del> </del>			-	
HRX)				1				l	
alpha mannosidase II	1	D55649		+		_	+		
isozyme	ļ						·		
alpha thalassemia/mental retardation syndrome X-	3	U75653	+	+	*	+		+	
linked (ATRX)			1	1 .		1			•
alpha-2 macroglobulin	<del></del>	Z11711	<del></del>	<del> </del>		<u> </u>	<del> </del>	ļ	
alpha-2-globin	2		<u> </u>			Ь.			
L.————————————————————————————————————	I	V00516			L.		ŀ		
alpha-2-macroglobulin	1	U06985							
receptor/lipoprotein	[	· ·							
(A2MR/LRP)	· ·					٠.			
alpha-polypeptide of N-	1	M13520		-				_	
acetyl-alpha-	l '								
glucosaminidase (HEXA)			1	1	j				
alpha-spectrin	1	X86901							
alpha-subunit of Gi2 a	1	X07854		<del>  </del>		_			
(GTP-binding signal									
transduction protein)									
aminin receptor 1 (67kD); Ribosomal protein SA	2	J03799	T	+	+		+	+	
(LAMR1)		ļ	,	1 1					· · ·
aminolevulinate, delta-,	1	X64467		+					
dehydratase (ALAD)		, , , , , , , , , , , , , , , , , , ,				-			,
amino-terminal enhancer of	2	X73358	+	+	+	+		+	<del> </del>
split (AES)			l						
amino-terminal enhancer of	3	U04241	В	+	+	•	+	+	
split (AES)			<u> </u>						, ,
AMP deaminase isoform L (AMPD2)	8	M91029		+				+	
amphiphysin (Stiff-Mann	1	U07616	В						
syndrome with breast	•	00/6/6	•	+				+	•
cancer 128kD autoantigen)			·	l i	i				
I(AMPH)					- 1				
amphiphysin (Stiff-Mann	1	U07616							
syndrome with breast									• 1
cancer 128kD autoantigen)				•	- 1			ı	
(AMPH)(non-exact, 68%) amphiphysin (Stiff-Mann	1	U07616		$\sqcup$					
syndrome with breast	<b>"</b>	00/010		•				İ	
cancer 128kD autoantigen)									
(AMPH)(non-exact, 68%)								1	
amphiphysin II	4	U87558		+	+		+		
amphiphysin II (67%aa		AF068915							<del></del>
amphiphysin?)	•	000010	,					1	:
amphiphysin II (non-exact	1.	AF001383							
69% aa)									

amphiphysin-like (AMPHL)	1	U68485	i -	+	+	П	r ·	Ι	T
amphiphysin-like (AMPHL) (low match)	1	AF068918				$\vdash$			
AMY-1	- 1	D50692	В, Т	<u> </u>	-	-	+	-	
amyloid beta (A4)	1	L77864	<del> </del>	+	+	+	⊢	+	
precursor protein-binding, family B, member 1 (Fe65) (APBB1)		· .					-		
amyloid beta (A4) precursor-like protein 2 (APLP2)	6	L27631	Tlymphoma	+	+		+	+.	
ankyrin 3, node of Ranvier (ankyrin G) (ANK) (non-	1	U43965	<u> </u>						
exact, 50%)	1 ,	X05908	<del> </del>	+	+	+	_	+	
annexin II	1	D28364			<u> </u>	L	<u> </u>	<u> </u>	
annexin II (lipocortin II;	<del></del>	D00017	<del>                                     </del>	+	+	+	+	+	high in many libraries
calpactin I, heavy polypeptide) (ANX2)				ļ .	<u>.                                    </u>	Ţ			nigh in many libranes
annexin IV (placental anticoagulant protein II) (ANX4)	1.	M19383		*	+	+	+	+	
annexin V (endonexin II) (ANX5)	2	M21731		+	+	+		+	
annexin V (endonexin II) (ANXV)	1.	M19384		+	+	+	7.	+	
annexin VI (p68) (ANX6)	6	Y00097		+	+	+		+	· ·
annexin VII (synexin) (ANX7)	. 1	J04543		+	+	+		+	
antigen identified by monoclonal antibodies 12E7, F21 and O13 (MIC2)	2	M16279		+	+	+		+	
antigen identified by monoclonal antibodies 4F2, TRA1.10, TROP4, and T43 (MDU1)	3	J02939		+	+	+	+	+	
antigen TQ1	. 1	· · · · · · · · · · · · · · · · · · ·				├─		┢	
anti-oxidant protein 2 (non- selenium glutathione peroxidase, acidic calcium- independent phospholipase A2) (KIAA0106)	1	D14662		+	+	+	.+	+	
APEX nuclease (multifunctional DNA repair enzyme) (APEX)	5	X66133		+	+		+	+	
Apolipoprotein L (APOL) (59%aa)	1	Z82215							
apoptosis inhibitor 1 (API1)	1	L49431	-	+	+	+	+	+	· · · · · · · · · · · · · · · · · · ·
apoptosis inhibitor 4 (survivin) (API4)	1	U75285	B, W	+	+		+		
apoptosis inhibitor 5 (API5)	1	U83857	Tlymphoma	+			+		
apoptosis specific protein (ASP)	1	Y11588	В	+			+	+	
apoptotic protease activating factor (APAF1)	1	AF013263	В	+	+		+		
aquaporin 3 (AQP3)	1	AB001325	T				+		
aquaporin 9 (AQP9)	7	AB008775	T activated				+		
arachidonate 12- lipoxygenase (ALOX12)	1	M58704	T.				+	+	
arachidonate 5- lipoxygenase-activating protein (ALOX5AP)	3	X52195	+	+		+		+	
ariadne homolog (ARI)	1	AJ009771	+	+	+	+		+	
ariadne-2 (D. melanogaster) homolog (all-trans retinoic acid inducible RING finger) (ARI2)	1	AF099149	+	+	+	+		+	

ARP1 (actin-related protein	1	X82206		+	I		+	T				
1, yeast) homolog A				l .	1	1		1 .			•	
(centractin alpha)		1.			l	1						
(ACTR1A)			<u> </u>	ļ	1	1		1				
ARP2 (actin-related protein	9	AF006082	.]	+	+	T -	+	+		•		
2, yeast) homolog (ACTR2)	į	l i		1	1	1	1	1		٠.		
ARP2/3 protein compex	5	AF006085	T activated.	+	+		+					
subunit 34 (ARC34)			W	l	1		1	1.				
Arp2/3 protein compex	6	AF006084	monocyte	+	+	<del> </del>	+	<del> </del>				<del>- · · ·</del>
subunit p41 (ARC41)	•	555554	stimulated		1 '	1	1					
Arp2/3 protein compex	1	AF006084	Currolated	├	<del> </del>	+	├	<del>├</del> ─				
subunit p41 (ARC41)) (low		/\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		1	i		Į		i .			
match)		•			1	1	1					
Arp2/3 protein complex	20	AFAGTORY	<u> </u>	<del>-</del>	<b>!</b>	<b>↓</b>	<b>!</b>	<u> </u>				
subunit p16 (ARC16)	20	AF017807		+	+	1	+	+	Ι.			
Arp2/3 protein complex.		AC000000	<u> </u>		<u> </u>	<u> </u>	L					
subunit p20 (ARC20)	3	AF006087	1	+	+	١.	+	+	ĺ		•	
		-						<u> </u>				
Arp2/3 protein complex	. 3	AF006086	W			T .	+	+				
subunit p21(ARC21)			· .	1	ļ	1		i	ļ			
ARP3 (actin-related protein	11	AF006083	·W		+	П	+	+				
3, yeast) homolog (ACTR3)	<u> </u>			ļ			ļ	] `				
arrestin, beta 2 (ARRB2)	1	AF106941	B, T, W	+	+	<del>                                     </del>	+					
arsA (bacterial) arsenite	1	AF047469	1	t								
transporter, ATP-binding,	l '	AFU4/408	В, Т	+	1	1	+		l		•	
homolog 1 (ASNA1)	<u> </u>	1 .		1	1	1	1		i :			•
aryl hydrocarbon receptor		AFRICARE	ļ <u>.</u>		ļ	1	ــــــ					
nuclear translesses like	2	AF044288	В	+ "	+	1	+					
nuclear translocator-like	1		]		1		1	i . l				
(ARNTL)			1	İ	i	1			İ			
aryl hydrocarbon receptor-	1	U31913	+	+	+	+		+			-	
interacting protein (AIP)	ļ			l		1	1				•	
aryisulfatase A (ARSA)	1	X52151	Tactivated	+		1	+	$\vdash$			·	
asialoglycoprotein receptor	1	M11025			—	<u> </u>	ļ	<u> </u>				
2 (ASGR2)	. '	1025		l	1	Ι.	+	+				
asparaginyl-tRNA		50.000									_	٠
	3	D84273		+	+		+					
synthetase (NARS)					L						•	
aspartyl-tRNA synthetase	1	J05032	В	+	+		+					
(DARS)	· ·		į į			ł	1					
ataxia telangiectasia	1	U82828	B, T		+	<u> </u>	+					
mutated (includes		ĺ						i				
complementation groups A,					ļ	l					•	
C and D) (ATM)							1	l. i				•
ataxin-2-like protein A2LP	1 .	AF034373	В. Т	+	+	├	-	+				
(A2LG)		1 00	activated		1	1		'				
ATF6	1	AF005887	Journal	+	├	⊢	+	_				<del></del>
				•		l	٠					
ATP binding cassette	1	U88667										
transporter (ABCR) (non-		1			١٠				' '			
exact 80%)		<u></u>	1 1		· ·							
ATP synthase (F1-ATPase)	1	X59066			_	<del>                                     </del>	П	$\Box$			-	
alpha subunit,	-		[ . j	-	· .							
mitochondrial		]	[ · ]		1					-		
ATP synthase beta subunit	1	M19482	<del>                                     </del>		$\vdash$	_		-	· · · · · ·		<del></del> .	
gene	•	,	. · i		1							
ATP synthase, H+	7	X60221	<del>                                     </del>	-	+	+	$\vdash$	+				
transporting, mitochondrial	'	, COLE I	} '	. •	1							
F0 complex, subunit b,		1	j l	-							•	•
isoform 1 (ATP5F1)			j l									
ATP synthase, H+	1	VEDDAZ	Toolivetee		<u></u>	<b></b>	┝┯┩	لــبــا				
transporting, mitochondrial	1	X69907	Tactivated	+	+		+	+				
FO complex, subunit c			f	l				i				
(subunit 9), isoform 1			j l									
(ATDSC4)	İ						. I					
(ATP5G1)					<u> </u>			[				
ATP synthase, H+	3	D14710										
transporting, mitochondrial			]				. 1					
F1 complex, alpha subunit,				. [				·				-
isoform 1, cardiac muscle			]									
(ATP5A1)	•	. '								•		
ATP synthase, H+		D14710				$\vdash$						<del>.</del> —
/\!F3y      a36.  T	1											
transporting, mitochondrial	•	017710	1				{	ŀ				
transporting, mitochondrial	•	014710										
transporting, mitochondrial F1 complex, alpha subunit, isoform 1, cardiac muscle	•	514710									٠.	
transporting, mitochondrial	. •	514710										

	·								C1/CA00/00005
ATP synthase, H+	2	M27132			T	T	Τ'''	1	1
transporting, mitochondrial					1		1	1	•
F1 complex, beta				Į			1		4
polypeptide (ATP5B)		<u> </u>		1	1	1	1	1	
ATP synthase, H+	1	D165 <b>63</b>	W	+	+	+	+	1	
transporting, mitochondrial	1		<b>i</b> .	1	1	1		1	1
F1 complex, gamma		l · .		•				1	1
polypeptide 1 (ATP5C1)	1		1			·			1
ATP synthase, H+	1	AF092124	+	+	+	+	+	+	<del> </del>
transporting, mitochondrial	•	i ,			1	1	1		· ·
F1F0, subunit g (ATP5JG)		1	1		1 .		1	ı	1
ATP/GTP-binding protein	2	U73524	+	+	+	+	+-	+	
(HEAB)		1 .		١.				1	
ATPase, Ca++	5	Z69881		+	┼─	<del> </del>	<del>                                     </del>	╁	<del> </del>
transporting, ubiquitous			1		Ι.	1	1		
(ATP2A3)		. ,		1 .	1 .		1	ł.,	
ATPase, H+ transporting,	2	D89052	1 +	1 +-	-	+	1 1	+	<del>†</del>
lysosomal (vacuolar proton	_				'	'		T .	
pump) 21kD (ATP6F)	1			1			1		·
ATPase, H+ transporting,	1	X76228	<del> </del>	+	+-	+	<del> </del>	+	<del> </del>
lysosomal (vacuolar proton	l. '	1		1.	1"	1		*	
pump) 31kD (ATP6E)	1.			l	1 .	}	1	I.	Ì
ATPase, H+ transporting.	5	X69151	<del> </del>	+	+	+	<del>                                     </del>	+	<del> </del>
lysosomal (vacuolar proton	l		.1	l '	'	Ι,		*	
pump) 42kD; Vacuolar		1	1		1	1	1	i	
proton-ATPase.	1	ľ			'	l	1	l	
subunit C; V-ATPase,			1	1	Ι .	٠.	'	Ι.,	1
subunit C (ATP6D)	· .	ŀ		1		Ι΄		1	[ · ·.
ATPase, H+ transporting,	3	L09235		+	<del> </del>	+	├──		
lysosomal (vacuolar proton	i .		1		Į	Ι `			1
pump), alpha polypeptide,		· .	.]		ĺ		l		
70kD, isoform 1 (ATP6A1)	l .		1	i	ļ.				i
ATPase, H+ transporting,	6	X62949	+ :	+	<del>  +</del>	+	<del>  -</del>	+	·
lysosomal (vacuolar proton		•	1	l .	1	l	1	] ·	,
pump), beta polypeptide,	l. i		Į.	ł		ł			
56/58kD, isoform 2				i		1		i i	
				i	1				
(ATP6B2)							1		
(ATP6B2) ATPase, H+ transporting	2	AF038954	+	+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton	2	AF038 <b>954</b>	+	+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J)		AF038954	+	+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting.	2	AF038954 D16469	+	+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton proto			+						high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1)			•						high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50			+						high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated)	1	D16469		+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50)	1	D16469 AF027302		+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette	1	D16469		+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1	1	D16469 AF027302		+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial)	1	D16469  AF027302  AF047690	+	+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA	1	D16469 AF027302		+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondral) ATP-dependent RNA helicase	1	D16469  AF027302  AF047690  AJ010840	+	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528)	1	D16469  AF027302  AF047690	+	+	+	+	•	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528)	1	D16469  AF027302  AF047690  AJ010840  L05425	+ T lymphoma	+	+	+		+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528)	1 1 1 2	D16469  AF027302  AF047690  AJ010840	+ T lymphoma	+	+	+	•	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528)	1 1 1 2	D16469  AF027302  AF047690  AJ010840  L05425  L05425	† T lymphoma	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) (non-exact 84%) autoantigen (Hs.75682)	1 1 2 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474	T lymphoma	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondral) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B	1 1 2 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127	† T lymphoma	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1)	1 1 2 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474	† T lymphoma	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1)	1 1 2 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674	+ T lymphoma T activated B	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondral) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B	1 1 2 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127	+ T lymphoma T activated B	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17)	1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522	+ T lymphoma T activated B	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3	1 1 2 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674	+ T lymphoma T activated B	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) (non-exact 84%) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%)	1 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111	+ T lymphoma T activated B	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-	1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522	+ T lymphoma T activated B	+	+	+	•	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896	+ T lymphoma T activated B	+	+	+	•	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1)	1 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111	+ T lymphoma T activated B	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896	+ T lymphoma T activated B	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, hysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) (non-exact 84%) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen (Hs.75682) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1)	1 1 1 1 1 1 1 1 2	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896  U79751	† lymphoma T activated B	+ +	+ +	+		+ +	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896	+ T lymphoma T activated B	+	+	+	+	+	high in testis
(ATP6B2) ATPase, H+ transporting, hysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondral) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1) basic transcription factor 3 (BTF3)	1 1 2 1 1 1 1 1 2 5	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044898  U79751  X74070	† lymphoma T activated B	+ + +	+ +	+	+	+ +	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1) basic transcription factor 3 (BTF3) basigin (BSG)	1 1 1 1 1 1 1 1 2 5 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044898  U79751  X74070  L10240	T lymphoma T activated B	+ +	+ +	+		+ +	high in testis
(ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1) basic transcription factor 3 (BTF3)	1 1 2 1 1 1 1 1 2 5	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044898  U79751  X74070	† lymphoma T activated B	+ + +	+ +	+	+	+ +	high in testis

WO 00/40749

## PCT/CA00/00005

B-cell CLUlymphoma 6 (zinc finger protein 51) (BCL6)	1	U00115		+	+				
B-cell translocation gene 1, anti-proliferative (BTG)	1	X61123	·		+	-		+	
BCL2/adenovirus E1B 19kD-interacting protein 2 (BNIP2)	1	U15173	В	+			+	+	
BCL2/adenovirus E1B 19kD-interacting protein 3- like (BNIP3L)	2	AF067396		+	+	+		+	
beclin 1 (coiled-coil, myosin-like BCL2- interacting protein)	1	AF077301	В	+	+		+		
(BECN1) beta-1,2-N-	2	U15128							
acetylglucosaminyltransfer ase II (MGAT2)	. :								
beta-2-microglobulin (B2M)	63	S82297	+	+	+	+	+	+	high in invasive prostate tumor
beta-hexosaminidase alpha chain (HEXA)	1	M16411			,				
beta-tubulin	7	V00599	+	+	+	+	+	+	high in many libraries
beta-tubulin (non-exact, 76%)	1	AF070561							
beta-tubulin, pseudogene	1	J00315					_		·
BING4	1	Z97184	<del>                                     </del>	1				-	
biotinidase (BTD) (non-eact 62%)	1	U03274							
biotinidase (BTD) (non- exact 70%)	1	U03274							
biotinidase (BTD) (non- exact, 56%)	. 1	U03274							•
BIOTINIDASE PRECURSOR	1	P43251							
biphenyl hydrolase-like (serine hydrolase) (BPHL)	1	X81372		+			+		
bone marrow stromal cell antigen 1 (BST1)	. 1	D21878					+		
box-dependent myc- interacting protein isoform BIN1-10 (BIN1)	1	AF043900						-	
box-dependent myc- interacting protein isoform BIN1-10 (BIN1) (non-exact, 64%)	1	AF043900							
brain my047 protein	1	AF063605	T	+	+		+		
branched chain keto acid dehydrogenase E1, alpha polypeptide (maple syrup	3	Z14093	T ,	+	.+		+		· .
urine disease) (BCKDHA)		507/50							
BRCA1 associated protein- 1 (ubiquitin carboxy- terminal hydrolase) (BAP1)	1	D87462	*	†	+	+			
BRCA1, Rho7 and vati genes, and ipf35	1	L78833			•	·			
breakpoint cluster region protein, uterine leiomyoma, 1; barrier to autointegration factor (BCRP1)	2	AF044773		+	+				
breakpoint cluster region protein, uterine leiomyoma, 2 (BCRP2)	2	AF044774		+	+		+	+	
breast cancer anti-estrogen resistance 3 (BCAR3) (non-exact 73%)	1	U92715							
bromodomain-containing protein, 140kD (peregrin) (BR140)	2	M91585		+	·				
Bruton's agammaglobulinemia tyrosine kinase (Btk)	1	U13424							

				•					
Bruton's tyrosine kinase (BTK)	1	U78 <b>027</b>							
Bruton's tyrosine kinase	1	U78 <b>027</b>		1.	_	1		<del> </del>	
(BTK), alpha-D-				`			1		
galactosidase A (GLA), L44-like ribosomal protein						ł	1	ŀ	
(L44L) and FTP3 (FTP3)								١	
BS4	1	AF108083		<del>                                     </del>		1	<del>                                     </del>	一	
BTG2 (BTG2)	6	Y09943	+ .	+	+	+	╁	+	
BTK region clone ftp	<del></del>	U78027	+	+	+	+	<del> </del>	+	
BTK region clone ftp-3	<del></del>	U01923	<u> </u>	+	+	ļ <u>.</u>	+	<u> </u>	· · · · · · · · · · · · · · · · · · ·
BUB3 (budding uninhibited	4					<u> </u>	<u> </u>	L_	
by benzimidazoles 3, yeast) homolog (BUB3)	4	AF053304	+	+	+	+		+	
(EGF-response factor 1)	्र (ब. )	27 <b>90</b> 67	4, 1	+111	<u>}</u> ∔1.	+	35.2	+	الداه ول مدنسسول ال شرال منتب بالرساسم فهما
butyrophilin (BTF1)	7	U90543		+	+	$\vdash$	+		
butyrophilin like receptor	1	AB020625.1				<del>                                     </del>	-	-	-
CAG repeat containing	2	U80744	<u> </u>	+	+	<del> </del>	—		
(CTG4A)				<u> </u>			<u> </u>		
	2	U8 <b>0743</b>	•	+	+	<u> </u>	+		
calcium channel, voltage- dependent, L type, alpha	1	M83566							
1D subunit (CACNA1D)	-	'				-			
(low match)					İ	<u> </u>			
calcium/calmodulin- dependent protein kinase	1	AF069765		+	+	+		+	
(CaM kinase) II gamma									j ·
(CAMK2G)		·	•				l. •	•	
calcium/calmodulin-	1	AF101264	В	+	+		+		
dependent protein kinase	•	]							
kinase (KIAA0787) calmodulin (=M19311)	<del></del> 7	D45887	<del></del>	<b> </b>			<u> </u>	<u> </u>	
calmodulin (=W19311)	-	1					<u> </u>		
(phosphorylase kinase.	6	M27319	В	+	+	1	+	+	
delta) (CALM1)						1			
calnexin (CANX)	3 ·	M94859	T	+			+	+	
calpain, large polypeptide	. 5	X04366	<del></del>	+	+	<del>                                     </del>	+	+	
L1 (CAPN1) calpain, large polypeptide	<b></b>	l langue		<u> </u>		<u> </u>	L_		
L2 (CANP2)	5	M23254		+	+				
calpain, small polypeptide (CAPN4)	1	X04106		+	+		+	+	
calpastatin (CAST)	3	D16217		$\vdash \vdash$		$\vdash$	+	Н	
Calponin 2		D83735	<del></del>	+		+	<u> </u>	+	
calponin 2 (CNN2)	<del></del>	D83735	В, Т	+		Ļ.	+	لبنا	
calponin 2 (CNN2) (low		1	D, 1	┞┸┦			<u> </u>		
score)	1	D83735	•						
calumenin (CALU)	3 .	AF013759	В	<del>                                     </del>	+		+	+	
cAMP response element-	4	L05912		<b> </b>			Ĺ	$\vdash$	<u> </u>
binding protein CRE-Bpa (H GS165L15.1)	<b>-7</b>		<u>.</u>						
cAMP-dependent protein kinase type II (Ht31)	1	M90360							
canicular multispecific	1	AF009670		-		+	+	+	
organic anion transporter (CMOAT2)									
capping protein (actin	6	U56637	B, T		+			+	
filament) muscle Z-line, alpha 1 (CAPZA1)	•								
capping protein (actin	2	U03269	В	+	+		$\vdash$		<del> </del>
filament) muscle Z-line, alpha 2 (CAPZA2)									
capping protein (actin	1	U03271	+	+-	+	+	$\vdash$	+	
filament) muscle Z-line, beta (CAPZB)	ı	003271	<b>.</b>		₹				
		<del> </del>							<u> </u>

									C1/CA00/00003
capping protein (actin filament), gelsolin-like (CAPG)	8	M94345	+	+		+	T	+	
carbamoyl-phosphate synthetase 2, aspartate transcarbamylase, and	1	D78586	+	+	+	+		+	
dihydroorotase (CAD) carbonic anhydrase V, mitochondrial (CA5)	· 1	L19297	<u>.</u>	+	-	$\vdash$	+	$\vdash$	
carboxypeptidase D (CPD)	3	U65090	8	+	+	-	—		
carnitine/acylcamitine	1	Y10319	<del>                                     </del>	+	+	ļ	+	↓	·
transiocase (CACT) Cas-Br-M (murine)	2	X57110	·	Ľ	Ľ	Ŀ	+		
ecotropic retroviral transforming sequence (cbl)	-								
casein kinase 1, alpha 1 (CSNK1A1)	1	L37042	+	+	+	+	1	+	
casein kinase 2, alpha 1 polypeptide (CSNK2A1)	2	M55265	В	+			+	+	
casein kinase I gamma 3L (CSNK1G3L)	1	AF049090.1					<u> </u>	<u> </u>	
casein kinase II alpha subunit(=S72393)	1	X69951							
CASP8 and FADD-like apoptosis regulator (CFLAR)	4	AF015450		+	+	+	+	+	
caspase 1, apoptosis- related cysteine protease (interleukin 1, beta, convertase) (CASP1)	7	U13697	+			+			
caspase 10, apoptosis- related cysteine proteas (CASP10)		U60519	B, T activ		<u> </u>		+		
caspase 3, apoptosis- related cysteine protease (CASP3)	3	U13737	B, T	+	+	+	+		
caspase 4, apoptosis- related cysteine protease (CASP4)	6	U25804	+	+	+	+		+	
caspase 5, apoptosis- related cysteine protease (CASP5)	1	U28015			+				
caspase 8, apoptosis- related cysteine protease (CASP8)	2	X98173		+		+		+	*
caspase 9, apoptosis- related cysteine protease (CASP9)	1	U56390	В			+	+		
catalase (CAT)	5	X04076	В	+	+		+		· · · · · · · · · · · · · · · · · · ·
catechol-O- methyltransferase (COMT)	1	M65213		+	+		+		
catenin (cadherin- associated protein), alpha 1 (102kD) (CTNNA1)		D14705		+	+				
cathelicidin antimicrobial peptide (CAMP)	1	X89658	В		·				•
cathepsin B (CTSB)	4	L16510			+		+	+	
cathepsin C (CTSC)	3	U79415		+	+	+		+	
cathepsin D (lysosomal aspartyl protease) (CTSD)	4	M11233		+	+		+		
cathepsin E (CTSE)	1	J05036					+		
cathepsin G (CTSG)	1	M16117	T, W		+				
cathepsin S (CTSS)	34	M86553	B, Monocyte lymr	stimu	Jated	, T	+	+	
cathepsin W (lymphopain) (CTSW)	4	AF013611						+	
CBF1 interacting corepressor CIR (=U03644 recepin)	1	AF098297					-		

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CCAAT/enhancer binding protein (C/EBP), alpha (CEBPA)	3	X87248		+	+	+		+	
CCAAT/enhancer binding protein (C/EBP), delta (CEBPB)	1	S63168			+		+	+	
CCAAT-box-binding transcription factor (CBF2)	2	M37197	T lymphoma			+	+	<u> </u>	
CCR5 receptor (CCR5) (non-exact?)	1	AF011504				1			
CD14 antigen (CD14)	11	M86511	+	+	+	+	<del> </del>	+	
CD18 (=M95293)	4 .	X64071	<u> </u>		<u> </u>	<del>                                     </del>	<del>                                     </del>	<u> </u>	
CD1C antigen, c polypeptide (CD1C)	2	M28827				<u> </u>		+	
CD2 antigen (cytoplasmic tail)-binoing protein 2 (CD2BP2)	1	AF104222	)			: '			
CD2 antigen (p50), sheep red blood cell receptor (CD2)	4	M14362	+		+	+	·	+	
CD2 cytoplasmic tail- binding protein 1 (CD2BP1) CD20 antigen (CD20)	2	AF038602					+		
CD20 receptor (S7)	1	X12530	<u> </u>						
	1	X07203							
CD22 antigen (CD22)	1	U62631	В						
CD24 signal transducer	1	M58664				$\Box$			
CD33 antigen (gp67) (CD33)	1	M23197					+	•	
CD33 antigen-like 2; OB binding protein-2 (CD33L2) (non-exact, 68%)	1	U71383							
CD33L2 (61% aa)	1	D86 <b>359</b>							
CD36 antigen (collagen type I receptor, thrombospondin receptor) (CD36)	7	M98398	Tlymphoma		+		+	+	
CD37 antigen (CD37)	5	X14046	+	+		+		+	
CD38 alt	1	D84277			·				
CD39 antigen (CD39)	1	U87967	В	+		$\vdash$	+	+	
CD3D antigen, delta polypeptide (TiT3 complex) (CD3D)	1	X03934			+	+		+	
CD3E antigen, epsilon polypeptide (TiT3 complex) (CD3E)	1	X03884	+			+.			
CD3G anligen, gamma polypeptide (TiT3 complex) (CD3G)	2	X06026	W		-		+		-
CD3Z antigen, zeta polypeptide (TiT3 complex) (CD3Z)	2 .	J04132	+			+			
CD3-zeta (clone pBS NK1)	1	X55510							
CD4 (low match)	1	568043							
CD4 antigen (p55) (CD4)	4	M12807		+ ·	+		+		
CD44 antigen (homing function and Indian blood group system (CD44)	6	X56794	W				+	+	
CD48 antigen (B-cell membrane protein) (CD48)	3	X05341	+	+	+	+	·	+	
CD53 antigen (CD53)	10	L11670	+	+		+		+	
CD53 antigen (CD53) (low match)	1	M60871					·		
CD63 antigen (melanoma 1 antigen) (CD63)	3	M59907						7	
CD68 antigen (CD68)	2	S5723 <b>5</b>		+	+		+	+	

CD74 antigen (invariant	72	K01144	+	+	+	+	+	+	high in many libraries
polypeptide of major histocompatibility complex.		·							
class II antigen-associated)			1.		1		1	1	,*
(CD74)			•		1. *	1	1.		
CD79A antigen	2	M80462	<del> </del>	<del> </del>	++	╁	┼	}	
(immunoglobulin-	} _				'	1			
associated alpha) (CD79A)						1	•		
CD79B antigen	2	M89957	+	t	<del>                                     </del>	1	<del>                                     </del>		†
(immunoglobulin-	,				Ι.	- [	İ	İ	
associated beta) (CD79B)	·			L		1	.		
CD8 antigen, alpha	2	M27161	+			+		+	
polypeptide (p32) (CD8A) CD8 antigen, beta	<u> </u>		<u> </u>			<u> </u>			
polypeptide 1 (p37)	1	X13445	W		l .	l			
(CD8B1)				i	i		1	1	
CD81 antigen (target of	1	M33680		+	+	}	-	<del>-</del>	
antiproliferative antibody 1		14133000		*	+	1		+	
(CD81)			1 .	1	1		]		<b>1</b>
CD83 antigen (activated B	1	Q01151	В	+	+	╁	├	+	
llymphocytes,	·	401.0.		'	] :	1	١.		1 .
mmunoglobulin					1	1		l	
superfamily) (CD83)							1		
CD84 antigen (leukocyte	. 1	U82988		+	+	1		+	· · · · · · · · · · · · · · · · · · ·
antigen) (CD84)				l	١.	1			
CD86 antigen	1	L25259		+					
CD9 antigen (p24) (CD9)	2	M38690	<u> </u>	<del>                                     </del>	+	<del> </del>	+	+	
CD97 antigen (CD97)	12	X84700	+	+	<del></del>	+	-	-	
_ · · · ·					<u> </u>		<u> </u>		
CD97 antigen (CD97) (noin-exact 59%)	1	P48960							
CD97 antigen (CD97) (non-	1	Voteso			<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>.</u>
exact 62%)	1	X94630	+	+	1	+	ł		
CDC23 (cell division cycle	1	AF053977	<del>                                     </del>	+		<del> </del>		<b>.</b>	
23, yeast, homolog)		AF033811		Τ.		1	+	+	l
(CDC23)		4			1	1	i		1
CDC37 homolog	1	U63131	В	+	+	├	+	+	<u> </u>
Cdc42 effector protein 3	2	AF104857	В	+	+	<u> </u>	+		·
(CEP3)	-	Al 104031		T	Ι Τ	İ	T	ļ.	·
CDC-like kinase (CLK)	1	L29219	<del> </del>	+	+	+	-	+	
CDC-like kinase 2 (CLK2)	1	AF023268	ļ <u></u>			Ļ.	<u> </u>	Ľ	
			. В	+	+	l			
CDW52 antigen (CAMPATH-1 antigen)	13	X15183	Tactivated	+	+		+		_:
(CDW52)	·		<i>'</i>	ŀ		1	· ·		
cell cycle progression	1 "	AE044704	<u> </u>				ļ		
restoration 8 protein(CPR8)	'	AF011794.	i	İ			İ		
cell division cycle 10	4	S72008	+	+	+	_			
(homologous to CDC10 of	·	. 372000	T	T	T .	+		+	
S. cerevisiae) (CDC10)					٠.				
cell division cycle 20,	1	U05340		+	+	+	$\vdash$	_	
S.cerevisiae homolog					1	`			
(CDC20)		•							
cell division cycle 25B	6	Z68092	. +	+	+	+		+	
(CDC25B)					L				
cell division cycle 2-like 1	. 1	AF057514							
(PITSLRE proteins) (CDC2L1) (non-exact 42%)	İ	,			<u> </u>				•
cell division cycle 42 (GTP-	5	Marria	ļ	L_,_		لبل		لبا	
binding protein, 25kD)	9	M35543	+	+	+ .	+		+	
(CDC42)	1		]						
cell division protein (non-	1	AF063015					$\vdash$		
exact 68%)	•	000010	]						
CELL-CYCLE NUCLEAR	1	Q13033				Н	$\vdash\vdash$	$\dashv$	
AUTOANTIGEN SG2NA									
(S/G2 NUCLEAR	l		j i					1	
ANTIGEN)			ļ l			,			•
centromere protein B	1	X55039	· · · · · · · · · · · · · · · · · · ·	+			+		
(80kD) (CENPB)			L					]	
cep250 centrosome	3	AF022655	В	+			+		·
associated protein			<u> </u>						

ceroid-lipofuscinosis,	A	F017456	+	+	1 +	T +	+	+	high in bone
neuronal 2, late infantile	i			1	}	1	· ·	1	
(Jansky-Bielschowsky	]			1	i			1.	
disease) (CLN2)			İ	'		1		i	
c-fgr (=M63877 6		X52206			Ì		<b>†</b>	1	
nonreceptor protein-	1		1		ı	1	1	ŀ	
tyrosine kinase (fgr))				ļ			1	i	<b>i</b> .
CGI-19 protein 3	AF	132953.1				· ·	1		
chaperonin containing 1	<del></del>	X74801	<del></del>	+	+	<del>  -</del>		+	
TCP1, subunit 3 (gamma)	1	XI 400 I	1	'	T .	١.	١.	Ι Τ	1
(CCT3)	- 1				ł		ĺ	`	•
chaperonin containing 1		F026291	<del> </del>	+	+		+	<del></del>	
TCP1, subunit 4 (delta)		020201		T .	Τ.		+	+	<u>l</u> * -
(CCT4)			İ	!	l	1			
chaperonin containing 4	<del></del>	L27706	В	+	+	-		┝	<u> </u>
TCP1, subunit 6A (zeta 1)		L27700			, T	Ι,	ļ		,,
(CCT6A)	Ï	•	Ĭ '''	i ''	ĺ	ĺ.	1	1	. "
chaperonin containing 4		F026292	В	+	├	-	├	1	<u> </u>
TCP1, subunit 7 (eta)	.   ^	020202	"	•	1			+	
(CCT7)	1				1	i			
Chediak-Higashi syndrome 1		U67615	B. T	+	+	├	+		
1 (CHS1)	1	-51010	lymphoma	•	-	l	T.	l	
Chediak-Higashi syndrome		U67615	1911phonia	<del> </del>		⊢		⊢–	
1 (CHS1) (low score)	1	-0.010		Ι.		l .	ŀ	l	
chemokine (C-C motif) 4		U03905	<del>                                     </del>	├─	├	<del> </del>	<del> </del>	⊢–	·
receptor 2 (CCR2)			1	1		ĺ	١.	١	
		X85740	<del> </del>	<del> </del>	<del> </del>	<u> </u>	├—	<b></b>	
receptor 4 (CCR4) (low	.   '	~~~~~~		İ	· ·		l	l	
match) (may contain	i		•		1	ļ	l		•
repeat)					i	1	[	٠,	
chemokine (C-C motif) 6		L31581			<u> </u>	-	<b>-</b>		
receptor 7 (CCR7)		L3 136 1			ľ	1			
chemokine (C-X3-C) 5		U20350		+	<b></b>		<u> </u>		
receptor 1 (CX3CR1)	' l '	020330	1	*	1				,
chemokine (C-X-C motif), 5		M99293			<u> </u>	ļ.,			
receptor 4 (fusin) (CXCR4)	'   '	VI33233	*	+	+	+	ľ	+	
chitinase 3-like 1 (cartilage 2	<del></del>	V80927							
glycoprotein-39) (CHI3L1)	'	VIOU927	į ·	+		+		+	
chilinase 3-like 2 (CHI3L2) 2		O A DOME				<u> </u>			
		U49835		+	l	+		+	
chloride channel 1, 1	1.0	G18280							
skeletal muscle (CLCN1)	l		L						
chloride channel 6 1		D28475		+	+				
(CLCN6)					}				. [
Chloride intracellular 1		U93205	+	+	+	+		+	
channel 1 (CLIC1)	<u> </u>					1			
chondroitin sulfate 5		X15998			+				
proteoglycan 2 (versican)	'		[		:				<u> </u>
(CSPG2)									
chondroitin sulfate 2		J02814			+			+	
proteoglycan core protein	·		<u> </u>		·				` ,
chromatin assembly factor 1	7	209028							
1 p48 subunit (CAF-1 P48									
subunit) (retinoblastoma			,						
binding protein p48)								- 1	
(retinoblastoma-binding	· .		'				l	٠	
protein 4) (MSI1 protein	1			ł				- 1	,
homolog)	<u> </u>		<u> </u>					]	
chromodomain helicase 2	A	F006513							
DNA binding protein 1			1						
(CHD1)						I			<u> </u>
chromodomain helicase 1	Al	F054177							
DNA binding protein 1-like	l			- 1			- 1		
(CHD1L)							I		
chromodomain helicase 1	. Al	F006514	В	+	+		+		
DNA binding protein 2				ļ			l	۱ .	
(CHD2)				!	. 1		I	ļ	· .
chromodomain helicase 1	Al	F006515							
DNA binding protein 3	1						1	1	
(CHD3)							ı	ı	
ancomo do mario La		<b>K86691</b>	+	+	+	+	$\neg$	+1	
chromodomain helicase 5	, ,								
Chromodomain helicase 5 DNA binding protein 4 (CHD4)	'						I		1

chromosome 1 open reading frame 7 (C1ORF7)	1	AF054176					i.		c ·
chromosome 1 specific transcript KIAA0493	1	AB007962	. ,	1				<del>                                     </del>	
chromosome 17 open reading frame 1B	1	AJ008112	1	+	:	$\vdash$			
(C170RF1B)									
chromosome 4 open reading frame 1 (C4ORF1)	1	AF006621		+	+	+		+	
chromosome condensation 1-like (CHC1L)	. 2	AF060219		+	+	+		+	
chromosome X open reading frame 5 (CXORF5)	1	Y15164	В	+	+	<del>                                     </del>	+	$\vdash$	
chromosome-associated	2	AF092564	В	+	+.	-	+	+	
polypeptide C(CAP-C) cig42	जु-	AF026944		-		├	ļ.	—	
cig5	3	AF026941		<del> </del>	ļ	<u> </u>		ļ <u>.                                    </u>	
citrate synthase (CS)	2	AF047042	В.	+-	+	ļ	+	+	· ·
class I major	2	U31372	<u> </u>	<u> </u>	<u> </u>	<b> </b>	_	Ľ	· · · · · · · · · · · · · · · · · · ·
histocompatibility antigen (HLA-Cw3)	- 2	031372					2		
class I major histocompatibility antigen	1	U31372							
(HLA-Cw3) (low match)									
clathrin assembly protein lymphoid myeloid leukemia (CALM)	3	U45976	В	+	+			+	
clathrin heavy chain	1	X55878		<del> </del>	<u> </u>		i –	<u> </u>	
clathrin, heavy polypeptide- like 2 (CLTCL2)	1	D21260					_		,.
clathrin, light polypeptide (Lca) (CLTA) (low match)	1	M20472							
clathrin-	3	D63475		+	+	+	+	+	
associated/assembly/adapt or protein, medium 1 (CLAPM1)									
cleavage stimulation factor, 3' pre-RNA, subunit 2 64kD	1	M85085							
(CSTF2) (non-exact 82%) cleavage stimulation factor,	7	U15782	В					<u> </u>	
3' pre-RNA, subunit 3, 77kD (CSTF3)	'	015762	ь	+	+		+		
clk3	1	L29220	В	+	+				
clone 23815 (Hs.82845)	1	U90916		+	+			+	
clone 24592 mRNA sequence	1	D88378	+	+	+	+		+	
Clq/MBL/SPA receptor C1qR(p) ()	1	U94333							
clusterin (complement lysis inhibitor, SP-40,40,	1	M64722	+	+	+	+	+	+	
sulfated glycoprotein 2, testosterone-repressed					- :				
prostate message 2, apolipoprotein J) (CLU)									
CMP-sialic acid transporter (CMPST)	1	D87969	В	+	+	-			
CMRF35	3	X66171		$\vdash$					
c-myc oncogene containing coxIII	1	X54629	<del></del>		_				
coagulation factor II (thrombin) receptor (F2R)	1	M62424		+	+			+	
coagulation factor V (proaccelerin, labile factor)	<del>- 1</del>	M14335		+		+	+		
(F5) coagulation factor XIII a subunit	3	M21998							
coagulation factor XIII, A1 polypeptide (F13A1)	6	M14354		+	+	+		+	
coated vesicle membrane	1	X92098	+	+	+	+	+	+	
protein (RNP24)				L					

			<u>-</u>						·
coatomer protein complex, subunit alpha (COPA)	5	U24105	1	+		ļ	+		
Cofilin 1 (non-muscle) (CFL1)	13	X95404	+	+	+	+	+	+	high in fetal brain
cold inducible RNA-binding protein (CIRBP)	7	D78134		+	+	H		+	
cold shock domain protein A (CSDA)	3	X95325		+	+				
collagen, type IX, alpha 2 (COL9A2)	3	AF019406	В						
colony stimulating factor 1	3	X03663		+			+	+	
receptor, formerly McDonough feline sarcoma viral (v-fms) oncogene homolog (CSF1R)	•				·				
colony stimulating factor,2 receptor, beta, low-affinity (granulocyte-macrophage) (CSF2RB)	, p	M59941					. 1)		
colony stimulating factor 2 receptor, beta, low-affinity (granulocyte-macrophage) (CSF2RB) (low match)	1	M59941							
colony stimulating factor 3 receptor (granulocyte) (CSF3R)	16	X55720		+					
complement component 5 receptor 1 (C5a ligand) (C5R1)	1	M62505	L						
conserved gene amplified in osteosarcoma (OS4)	2	AF000152		+	+	+		+	
COP9 (constitutive photomorphogenic, Arabidopsis, homolog) subunit 3 (COPS3)	2	AF031647		+	+		:	+	
COP9 homolog (HCOP9)	2	U51205	В	+	+	+	+	+	
COPII protein, homolog of s. cerevisiae SEC23p (SEC23A)	4	X97064		+	+				
copine I (CPNE1)	2	. U83246	В	+	• +	_	+	1	
copine I (CPNE1) (low score)	1	U83246							
coproporphyrinogen oxidase (coproporphyria, harderoporphyria) (CPO)	1	D16611			+		+	+	
core-binding factor, beta subunit (CBFB)	1	L20298		+					
coronin	22	X89109	T, W	+	+		+		
coronin (low match)	1	· U34690	•						
coronin (non-exact, 71%)	1	X89109							•
cot (cancer Osaka thyroid) oncogene (COT)	1	D14497	+	+	+	<u> </u>		+	
cryptochrome 1 (photolyase-like) (CRY1)	1	D84657		+	+			+	
CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) phosphatase, subunit 1	1	AF081287	<u>.</u>	+	+	+		+	
(CTDP1) C-terminal binding protein	1	U37408	В	+	+		+		
1 (CTBP1) C-terminal binding protein	2	AF016507	<u> </u>	+	<u>.</u>	<u> </u>	+	<u> </u>	·
2 (CTBP2) CUG triplet repeat, RNA-	3	U63289		+	+	+	<u> </u>	+	
binding protein 1 (CUGBP1) cullin 1 (CUL1)	3								·
cullin 3 (CUL3)	3	U58087 U58089	ļ <del></del>	+	+	+	<u> </u>	+	
cut (Drosophila)-like 1	1	M74099	В	+	Ļ	+	<u> </u>	+	
(CCAAT displacement protein) (CUTL1)									

cyclin D2 (CCND2)	2	D13639	T .	+	+	+	_	+	
cyclin D3 (CCND3)	5	M92287	B, T lymphoma		+	$\vdash$	+	H	
cyclin G1 (CNNG1)	1	D78341	iyinpnoma B	+	+	<del>                                     </del>	<del> </del>	+	<del>                                     </del>
cyclin I	3	D50310	B.	+	<del></del>	$\vdash$	+	+-	
cyclin T2 (CNNT2)	<del></del>	AF048732	B, T lymphoma	В		$\vdash$		-	1
cyclin-dependent kinase 2 (CDK2)	1	X62071	yp.,.o.na					$\vdash$	<u> </u>
cyclin-dependent kinase inhibitor (p27Kip1)	1	S76986							
cyclin-dependent kinase inhibitor 1A (p21, Cip1) (CDKN1A)	. 2	S67388	+	+	+	+.	+	+	
CYP2D7-CYP2D6 intergenic region (partial)	1	X90926						-	
cystatin B (stefin B) (CSTB)	1	L03558			+		+	+	
cysteine and glycine-rich protein 3 (cardiac LIM protein) (CSRP3)	5	L54057			+				
cytidine deaminase (CDA)	2	L27943					+		1
cytochrome b	1	AF042500							<u> </u>
cytochrome b (CYTB) (isolate Aus5)	1	AF042518							
cytochrome b(-245) beta chain N-terminal region (X- linked granulomatous disease gene)	2	X05895							
cytochrome b-245, beta polypeptide (chronic granulomatous disease) (CYBB)		X04011	+			+		+	
cytochrome C	1	P00001	<del>                                     </del>	<del></del>	$\vdash \vdash \vdash$	<b>-</b> -	-		
cytochrome c oxidase subunit IV (COX4)	1	U90915	1	+	+		+	+	-
cytochrome c oxidase subunit Vb (COX5B)	2	M59250					+		
cytochrome c oxidase subunit VII-related protein (COX7RP)	6	AB007618	+	+	+	+		+	
cytokine suppressive anti- inflammatory drug binding protein 1 (p38 MAP kinase) (CSBP1)	. 1	L35263	lymphocyte	+	+		+		
Cytoplasmic antiproteinase=38 kda intracellular serine proteinase inhibitor	1	S69272			+,,				
cytotoxic granule- associated RNA-binding protein p40-TIA-1	1	S70114				·			
D123 (D123)		D14878	+	+	·	+		+	
D2-2	1	AF019226							
D38	1	X74802							
damage-specific DNA binding protein 1 (127kD) (DDB1)	2	AJ002955	+	+	+	+	+	+	
DCHT (low match)	1	AF017635							
DEAD/H (Asp-Glu-Ala- Asp/His) box binding protein 1 (DDXBP1)	1	U78524		.+	+	+	+	+	
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide (72KD) (P72)	2	U59321		+.	+		+.	+	
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 1 (DDX1)	1	X70649		+	+			+	
100,11		L	<u>.                                    </u>					1	<u> </u>

CONTRACTOR OF THE PARTY OF THE			<u> </u>							
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 15 (DDX15)	2	AB001636								••
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 16 (DDX16)	2	AB011149	+	+	+	+		+		
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 3 (DDX3)	-3	U50553	+	+	+	+		+		
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 5 (RNA helicase, 68kD) (DDX5)	37	X15729	+	+	+	+		+		
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 5	1	AF015812				-				
(RNA helicase, 68kD)  (DDX5) (low match)	,	;	,							, 6
DEAD/H (Asp-Glu-Ala-	2	D17532	+ +	+	<del> </del>	$\vdash$	<del>                                     </del>	<del> </del>		
Asp/His) box polypeptide 6 (RNA helicase, 54kD) (DDX6)										
DEAD/H (Asp-Glu-Ala-	1	D50487	<del> </del>			<del>  -</del>	┞	٠.	<u> </u>	
Asp/His) box polypeptide 8 (RNA helicase, 54kD) (DDX8)		030487			+	+		+		
DEAD/H (Asp-Glu-Ala-	3	L13848	+ +	+	+	+	├	+	<del></del>	
Asp/His) box polypeptide 9 (RNA helicase A, nuclear DNA helicase II;		2.00.0							·.	
leukophysin) (DDX9)		İ	1	1	1	1		l ·		
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide, Y chromosome (DBY)	1	AF000985		+.	+		+			
Death associated protein 3 (DAP3)	2	X83544	+	+	+	+	+	+		
death effector domain- containing protein (DEDD)	1	AF083236		+	+ .	+		+	-	
death-associated protein 6 (DAXX)	2	AF039136	<b>†</b>	+	+	+		+		
dedicator of cyto-kinesis 2 (DOCK2)	4	D86964	+	+		+		+		
defender against cell death 1 (DAD1)		D15057			+		+	+		
Defensin, alpha 1, myeloid- related sequence (DEFA1)	4	L12690	·			+	+	+		
DEK gene (D6S231E)	1	X64229	В		+		+			
delta sleep inducing peptide, immunoreactor (DSIPI)	4	Z50781	+	+	+	+		+	<del>:</del>	
dendritic cell protein (GA17)	3	AF064603	+	+	+	+		+,		
deoxycytidine kinase (DCK)	.1	M60527								
deoxyribonuclease II, lysosomal (DNASE2)	3	AB004574			-					
DGS-I	2	L77566		+						
diacylglycerol kinase	3	D16440				$\vdash$	$\dashv$		<del></del>	<del></del>
diacylglycerol kinase alpha (DAGK1) (clone 24)	3	AF064771		+						
diacylglycerol kinase alpha (DAGK1) (clone 24) (low match)	1	AF064771	·							
diaphanous (Drosophila, homolog) 1 (DIAPH1)	1	AF051782	B, monocyte stimulated	+	+		+	+	<del> </del>	
diaphorase (NADH) (cytochrome b-5 reductase) (DIA1)	1	Y09501	+	+	+	Ŧ	+	+		
differentiated Embryo Chondrocyte expressed gene 1 (DEC1)	1	AB004056		+			+	+	-	

								_	
differentiated Embryo Chondrocyte expressed gene 1 (DEC1) (low match)	1	AB004066							
differentiation antigen	1	L23415		+		+	$\vdash$	+	<del>                                     </del>
DiGeorge syndrome critical region gene 2 (DGCR2)	1	X84076	· · ·	+	+	$\vdash$	$\vdash$	+	
dihydrolipoamide	2	J03620	·	+	-	-	+	+	
dehydrogenase (E3 component of pyruvate	,					.			
dehydrogenase complex, 2-oxo-glutarate complex,						·			
branched chain keto acid dehydrogenase complex) (DLD)									• • •
dihydrolipoamide S- acetyltransferase (E2	.1	Y00978	В	+			+	$\vdash$	
component of pyruvate dehydrogenase complex)									
dihydropyrimidinase-like 2 (DPYSL2)	1	D78013		+	+	<u> </u>	+	+	
dinG gene	1	Y10571	· · · ·		<u> </u>	-	-	-	
dipthena toxin resistance protein required for	3	AF053003	В	+	+		+	+	
diphthamide biosynthesis (Saccharomyces)-like 2 (DPH2L2)	,								
disintegrin-protease (non- exact 72%)	1	Y13323							
DJ-1 protein	2	AF021819	+	+	+	+		+	
Dmx-like 1 (DMXL1)	1	AJ005821	+		+	+			
DNA (cytosine-5-)- methyltransferase 1 (DNMT1)	3	X63692	T activated, lymphoma	+			+	+	
DNA fragmentation factor, 40 kD, beta subunit (DFFB)	1	AF064019							
DNA fragmentation factor, 45 kD, alpha subunit (DFFA)	2	U91985		+	+			+	
DNA mismatch repair protein (hMLH1)	1	U17840					·		
DNA segment on chromosome X (unique) 648 expressed sequence	3	M64241	+	+	+	+	+	+	high in many libraries
DNA segment, single copy probe LNS-CAI/LNS-CAII	3	M73547		+	+	+		+	
(deleted in polyposis (D5S346)								,	
DNA-damage-inducible transcript 1 (DDIT1) (low match)	1	L24498							
DnaJ protein	1	AJ001309							
DnaJ protein docking protein 2, 56kD	1	AJ001309							
(DOK2)		AF034970				·			
dolichyl- diphosphooligosaccharide- protein glycosyltransferase (DDOST)		D89060	+	+	+	+	+	+	activated T cell
dolichyl-phosphate mannosyltransferase polypeptide 1, catalytic subunit (DPM1)	1	D86198	Tactivated	+	+		+		
down-regulated by activation (immunoglobulin superfamily) (DORA)	.1	AJ223183					+		
down-regulated in adenoma DRA (low match)	1	P40879							
D-type cyclin-interacting protein 1 (DIP1)	1	AF082569	В				+	+	
(DIP1)	<u> </u>			<b> </b>	- 1	- 1		1	

								- :	C1/CA00/00003
dual specificity phosphatase 1 (DUSP1)	4	X68277	+	+	+	+	+	+	6
dual specificity phosphatase 11 (RNA/RNP complex 1-interacting) (dusp11)		AF023917	+	+	+-	+		+	
dual specificity phosphatase 3 (vaccinia virus phosphatase VH1-	1	L05147		+	+		+	+	
related) (DUSP3) dual specificity phosphatase 6 (DUSP6)	6	X93920	+	+	+	+	+	+	
dynactin 1 (p150, Glued (Drosophila) homolog) (DYTN1)	3	X98801	,						
dynactin 1 (p150, Glued (Drosophila) homolog) (DYTN1) (low match)	1	X98801	В	+	+ 1		. ,		
dynamin 2 (DNM2)	1	L36983				<del> </del>		<del>                                     </del>	<del></del>
dynamitin (dynactin complex 50 kD subunit) (DCTN-50) (non-exact 88%)	1	U50733							
dynein, axonemal, heavy polypeptide 17-like (non- exact, 57%aa)	1	X99947							
dynein, cytoplasmic, light intermediate polypeptide 2 (DNCLI2)	1	AF035812	В	+	.+			+	
intermediate polypeptide 2 (DNCLI2) (non-exact, 69%)	1	AF035812			·				
dyskeratosis congenita 1, dyskerin (DKC1)	1	U59151	, В	+			+	+	
dystonia 1, torsion (autosomal dominant) (DYT1)	1	AF007871		+	+	+		+	
dystrobrevin, beta (DTNB)	1	AF022728		+					
dystrophia myotonica- containing WD repeat motif (DMWD)	1	L19267		+	. +		+	+	
dystrophia myotonica- protein kinase (DMPK) dystrophin (muscular	1	L08835	+	+	+			+	
dystrophy, Duchenne and Becker types) (DMD) (low match, 59%aa)	7	X14298							
E1B-55kDa-associated protein	1	AJ007509	W	+	+		+	+,	·
E2F transcription factor 3 (E2F3)	2	D38550		+	+	+	+	+	:
E2F transcription factor 4, p107/p130-binding (E2F4) E2F transcription factor 5,	1	X86096	В	+			+		
p130-binding (E2F5) E74-like factor 1 (ets	2	U15642	+	+		+		+	
domain transcription factor) (ELF1)	1	M82882	В		+		+	+	
E74-like factor 4 (ets domain transcription factor) (ELF4)	3	U32645	_ · ·	+	+			+	
E74-like factor 4 (ets domain transcription factor) (ELF4) (non-exact, 71%)	1	U32645							
early development regulator 2 (homolog of polyhomeotic 2) (EDR2)		U89278	+	+	+	+		+	
EBV induced G-protein coupled receptor (EBI2)	1	L08177	W						
ecotropic viral integration site 2B (EVI2B)	3	M60830		+		+			

WO 00/40/49									.1/CA00/00005
ectin, galactoside-binding, soluble, 1 (galectin 1) (LGALS1)	1	J04456						+	6
EGF-like-domain, multiple 4 (EGFL4)	1	AB011541							
elF-2-associated p67 homolog	3	U13261	В	+				+	
elastin (supravalvular aortic stenosis, Williams-Beuren syndrome) (ELN) (low match)	1	M24782		+	+				
elav-type RNA-binding protein (ETR-3)	3	U69546							
electron-transfer- flavoprotein, alpha polypeptide (glutaric aciduria II) (ETFA)	2	J04058		•					
ELK3, ETS-domain protein (SRF accessory protein 2) (ELK3)	2	Z36715			+			+.	
elongátion factor 1-beta	1	L26404					,		
elongation factor Ts (mitochondrial protein)	1 .	AF110399							
elongation factor Tu- nuclear encoded mitochondrial	. 1.	X84694							
eMDC II protein	1	AJ242015.1							
ems1 sequence (mammary tumor and squamous cell carcinoma-associated (p80/85 src substrate)	.1	M98343		+	+		+	+	
(EMS1) endogenous retroviral	1 .	Z70664		-					
element HC2 endosulfine alpha (ENSA)	<del></del>	X99906		+-			<u> </u>	ļ	
endothelial differentiation.	<del>'</del>	M31210	<u> </u>	+	-	+		+	
sphingolipid G-protein- coupled receptor, 1 (EDG1)	•				Ţ	Ĺ			
endothelial differentiation, sphingolipid G-protein- coupled receptor, 1 (EDG1) (low match 66%)	<b>1</b>	M31210			٠.				
endothelial monocyte- activating polypeptide (EMAPII)	1	U10117	+	+	+	+	-	+	
enolase 1, (alpha) (ENO1)	12	M14328	+	+	+	+	+	+	
enolase 2, (gamma, neuronal) (ENO2)	1	X51956		+					
enolase-alpha	1	D28437							<i>(</i>
enoyl Coenzyme A hydratase 1, peroxisomal (ECH1)	. 2	U16660							
enoyl Coenzyme A hydratase, short chain, 1, mitochondrial (ECHS1)	1	D13900	+ .	+	+	+	+	+	
ENOYL-COA HYDRATASE, MITOCHONDRIAL PRECURSOR (SHORT CHAIN ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE 1) (low match, non-exact 56%)	1	P30084	:						
epidermal growth factor receptor pathway substrate 15 (EPS15)	2	U07707	:	+		+		_	

SECRETORY PROTEIN	2	Q15668							*
E1 PRECURSOR (EPI-1) (HE1) (EPIDIDYMAL SECRETORY PROTEIN		,					,		
14.6) (ESP14.6)	•							Ì	·
epithelial membrane protein 3 (EM(P3)	-1	U87947.	+	. +	+	-+		+	
Epoxide hydrolase 1, microsomal (xenobiotic) (EPHX1)	1	L29766							+ only
ERCC2 (=L47234)	1	X52221			-		-	-	
ERF-2	3	U07802	+	-+	+	+		+	high in gall bladder
ERp28 protein	1	X94910	+	+	+	+		+	
ervihrocyte membrane protein	2	MR1635			} .			,	
erythroleukemic cells K562	2	L25343							
EST (Hs.189509)	2	U24166							
estrogen receptor-related protein (hERRa1)	1	L38487							
ESTS, Highly similar to ADENYLOSUCCINATE SYNTHETASE	1	X66503	В, Т	+	+				
ESTs, Moderately similar to cysteine-rich fibroblast growth factor receptor	1	U28811	+	+	.+	+		+	
ET binding factor 1 (SBF1)	1	U93181	+	+			<u> </u>	+	
ets domain protein ERF	1	U15655	+	+	.+	+		+	
eukaryotic translation elongation factor 1 alpha 1 (EEF1A1)	326	X03558	T	+	+			+	
eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) (low match)	1	X03558							
eukaryotic translation elongation factor 1 alpha 1	1	X03558							
(EEF1A1) (low match) eukaryotic translation		Venzen	· · · · · · · · · · · · · · · · · · ·						
elongation factor 1 beta 2 (EEF1B2)	5	X60489	+	+	+	+	<u> </u>  -	+	
eukaryotic translation elongation factor 1 delta (guanine nucleotide exchange protein) (EEF1D)	1	Z21507	+	+	+ ,	+	+	+	
eukaryotic translation elongation factor 1 gamma (EEF1G)	31	Z11531	<del>- · ·</del> ·						
eukaryotic translation elongation factor 2 (EEF2)	2	X51466		+				+	
eukaryotic translation initiation factor 2, subunit 1 (alpha, 35kD) (EIF2S1)	1	J02645							
eukaryotic translation initiation factor 2, subunit 2 (beta, 38kD) (EIF2S2)	1	M29536							
eukaryotic translation initiation factor 2, subunit 3 (gamma, 52kD) (EIF2S3)	3	L19161		+	+				
eukaryotic translation initiation factor 3, subunit 10 (theta, 150/170kD) (EIF3S10)	2	U78311			-				
eukaryotic translation initiation factor 3, subunit 2 (beta, 36kD) (EIF3S2)	3	U36764	+	+	+	+	+	+	high in white blood cells
eukaryotic translation initiation factor 3, subunit 3 (gamma, 40kD) (EIF3S3)	6	U54559	+	+	+	+		+	high in spleen
eukaryotic translation initiation factor 3, subunit 4 (delta, 44kD) (EIF3S4)	9	AF020833		+	+	+		+	

								•	C1/CA00/00003
eukaryotic translation initiation factor 3, subunit 6 (48kD) (EIF3S6)	4	U94175	+	+	+	+		+	high in bladder
eukaryotic translation initiation factor 3, subunit 6 (EIF3S6)	1	U62962		+	+	+		+	Highly represented (1.4833 pct) in library 36 human gall bladder
eukaryotic translation initiation factor 3, subunit 7 (zeta, 66/67kD) (EIF3S7)	3	U54558	+	+	+	+		+	
eukaryotic translation initiation factor 3, subunit 8, 110KD (EIF3S8)	5	U46025	+	+	+	+.	+	+	high in testis
eukaryotic translation initiation factor 4 gamma, 1 (EIF4G)	1	AF012088	·					-	
eukaryotic translation initiation factor 4 gamma, 1 (EIF4G) (low match)	1	AF012088							
eukaryotic translation initiation factor 4 gamma, 1 (EIF4G1)	2	D12686					,		
eukaryotic translation initiation factor 4 gamma, 2 (EIF4G2)	6	U73824	+	+	+	+	+	+	
eukaryotic translation initiation factor 4 gamma, 2 (EIFG2)	2	U76111	+	+	+	.+	+	+	
eukaryotic translation initiation factor 4A, isoform 1 (EIF4A1)	29	D13748							
eukaryotic translation initiation factor 4A, isoform 2 (EIF4A2) eukaryotic translation	11	D30655	+	+	+	+	+	+	
initiation factor 4B (EIF4B) eukaryotic translation	18	X55733 P06730	+	+	+	+		+	
initiation factor 4E (EIF4E) Eukaryotic translation	3	L36056	T, B	+			+	+	
initiation factor 4E binding protein 2 (EIF4EBP2) eukaryotic translation	2	Q15056							
initiation factor 4H (EIF4H)	2	U49436	+	+	+	+	+	+	
initiation factor 5 (EIF5)	2	U90176	+	+	+	+		+	
termination factor 1 (ETF1) EV12 protein	1	M55266		+					
Ewing sarcoma breakpoint region 1 (EWSR1)	1	X66899	+	+	+	+		+	
EWS/FLI1 activated transcript 2 homolog (EAT-2)	2	AF020264							
EWS-E1A-F chimeric protein	1	U35622							
excision repair cross- complementing rodent repair deficiency, complementation group 1	1	M28650	+	+	+.	+		+	
(includes overlapping antisense sequence) (ERCC1)			·						
excision repair cross- complementing rodent repair deficiency,	. 1	X69978		+	+	+		+	
complementation group 5 (xeroderma pigmentosum, complementation group G (Cockayne syndrome)) (ERCC5)									
exostoses (multiple)-like 3 (EXTL3)	1	AF001690		+	+	+	$\dashv$	+	
F11									

	•								•
F1-ATPase beta subunit (F-1 beta)	2	X03559							
Fanconi anaemia group A	2	Z83095							
Fanconi anemia, complementation group A (FANCA)	1	X99226	+	+	+	+,			
far upstream element (FUSE) binding protein 1 (FUBP1)	2	U05040	+		+			+	
farnesyl diphosphate synthase (farnesyl pyrophosphate	. 1	J <b>05262</b>	+	+	+	+		+	
synthetase,dimethylallyltra nstransferase, geranyltranstransferase) (FDPS)		• .							
farnesyl-diphosphate farnesyltransferase 1 (FDFT1)	2	X69141	+	+	+	+	+	+	
farnesyltransferase, CAAX box, beta (FNTB)	2	L00635		+	. +				
Fas ligand (gene and promoter region)	1	AF044583							
Fas-ligand associated factor 1 fatty-acid-Coenzyme A	1	U70667		Ŀ	<u> </u>	L.			
ligase, long-chain 1 (FACL1)	4	D10040	*	+	+	*	+	+	
Fc fragment of IgA, receptor for (FCAR)	. 1	X54150						•	
Fc fragment of IgE, high affinity I, receptor for; gamma polypeptide (FCER1G)	1	M33195	+	+	+	+		+	
Fc fragment of IgE, low affinity II, receptor for (CD23A) (FCER2)	2	X04772	+	+				-	
Fc fragment of IgG, low affinity IIa, receptor for (CD32)	6	M31932	+ .	+	+	+	+	+	
Fc fragment of IgG, low affinity IIa, receptor for (CD32) (FCGR2A)	1	X62572	+	+	+	+	+	+	
Fc fragment of IgG, low affinity Illa, receptor for (CD16) (FCGR3A)	34	X07934	+	. +	+	+		+	
Fc fragment of IgG, receptor, transporter, alpha (FCGRT)	3	U12255		+	+	+	+	+	high in many libraries
fc-fgr Fc-gamma-receptorIIIB	1 2	Z13983 M90746							
(FCGR3B) feline sarcoma (Snyder-	3	X06292			·			_	
Theilen) viral (v- fes)/Fujinami avian		700202			٠.				
sarcoma (PRCII) viral (v- fps) oncogene homolog(FES) c-fes/fps)									
female sterile homeotic- related gene 1 (mouse homolog) (FSRG1)	2	X96670	+	+	+	+		+	
ferritin L-chain	9	Y09188				<u> </u>		Ĺ.	
ferritin, heavy polypeptide 1 (FTH1)		M11146	+	+	+	+			·
fertilin alpha pseudogene fetal Alzheimer antigen	1 2	Y09232 U05237		+				Ŀ	
(FALZ)	1	M34024		Ţ.,		ļ		_	
variable region			+			<u> </u>	_		
fibrinogen-like protein 2	3	X56597 Z36531		+	+	+	+	+	
(T49)	1. 1			I	I	Ι΄.	1	ŀ	1

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fibroblast growth factor receptor 2 (bacteria-	1	M35718	+	+.	+	+	+	+	
expressed kinase,	,							ļ .	
keratinocyte growth factor				ļ				l	<u> </u>
receptor, craniofacial dysostosis 1, Crouzon				1				l	
syndrome) syndrome.				1 .					
Pfeiffer syndrome.		·				ŀ			
Jackson-Weiss) (FGFR2)			-	-				l	
ficolin (collagen/fibrinogen	19	D83920		<del>                                     </del>		+		+	
domain-containing) 1	•							١.	,
(FCN1) filamin A, alpha (actin-		VERZZE					ļ		·
binding protein-280)	2	X53416	1			٠,			
(FLNA)								ļ .	
filamin B, beta (actin-	1	AF043045		+	+		+	-	<del> </del>
binding protein-278)		·			,		ŀ		
(FLNB)									
Finkel-Biskis-Reilly murine sarcoma virus (FBR-MuSV)	2	X65923	+	+	+	+	+	+	Highly represented in
ubiquitously expressed (fox									intraepithelial neoplasia and
derived); ribosomal protein		•		i			'		invasive prostate
S30 (FAU)	·						ŀ		tumor
FK-506 binding protein	1	M80199	+	+	+	+		+	
FK506-binding protein 1A	2.	M34539		$\vdash$			一	<u> </u>	<del></del>
(12kD) (FKBP1A)							<u> </u>	L	
FK506-binding protein 1B (12.6 kD) (FKBP1B)	. 1	M92423		+		+		+	
FK506-binding protein 5	4	U71321	<u> </u>	+				<u> </u>	
(FKBP5)	7	0/1321		†	+	+		+	, .
Flightless I (Drosophila)	3	U80184		+			_	-	
homolog (FLII)									
Flightless I (Drosophila)	. 1	U80184						_	*
homolog (FLII) (low match)							L		
FLN29 (FLN29)	2	AB007447	L	+		+		+	
flotillin 2 (FLOT2)	5	M60922	+	+	+	+	+	+	
folate receptor 2 (fetal)	1	AF000380	· · · · · · · · · · · · · · · · · · ·	+	+	+		+	
(FOLR2) forkhead (Drosophila)		********							_
homolog	1	AF032886	*	+		+		+	
(rhabdomyosarcoma) like 1	•								
(FKHRL1)			ļ <sup>*</sup>		٠.			ŀ	
Formyl peptide receptor 1	. 9	M60627	+	+	+	+		+	
(FPR1)		la reas							
formyl peptide receptor-like 1 (FPRL1)	1	M84562							Found only in
1.(1.1,2.1)			}						libraries from
formyl peptide receptor-like	1	M84562		-			-		pidoonida
1 (FPRL1) (low score)			1						·
fragile X mental retardation	1	L29074	+	+		+		+	
1 (FMR1) fragile X mental		LIGEZGE							
retardation, autosomal	1 -	U25165	+	+	*	+			
homolog 1 (FXR1)		•			ı				
Friend leukemia virus	3	M93255	+	+			-	_	
integration 1 (FLI1)			<u> </u>	╚	: [				
fructose-bisphosphatase 1	1	D26054				+		+	
(FBP1) FSHD-associated repeat	-1	HOENEE			ļ				· · ·
DNA, proximal region	'	U85056			ļ	. ,			
fucose-1-phosphate		AF017445		+	+	+	$\vdash$		
guanylyltransferase	· .						·		·
(FPGT)									
full length insert cDNA	1	AF086122					·		
full length insert cDNA		AF075061		$\vdash$		—	<u> </u>		
YP07G10	'	_ \(\alpha\) \(\alpha\	<b> </b> .√		1			!	
fumarate hydratase (FH)	1	U59309		+	+	+	$\dashv$	+	· · · · · · · · · · · · · · · · · · ·
FUS (low match)	<del>- i  </del>	X99006		<del>                                     </del>		$\dashv$			
FYN-binding protein (FYB-	16	U93049		+					
120/130) (FYB)	19	U33U48	-		- 1	+			
	1		L	L					

									•
G alpha interacting protein (GAIP) (low score)	1	X91809						-	"
G protein beta subunit-like protein 12.3	2	D28398							
G protein-coupled receptor 64 (HE6) (non-exact 59%)	1	X81892				+		<del>                                     </del>	
G protein-coupled receptor kinase 6 (GPRK6)	2	L16862	+	.+	+			+-	
G1 to S phase transition 1 (GSPT1)	2	X17644		+	+	+	+	+	
GA-binding protein transcription factor, beta	1	D13316		+	+	+	+	+	
subunit 2 (47kD) (GABPB2)							·		
galactose-1-phosphate uridylyltransferase (GALT)	2	M60091							
galaciosidase, beta 1 (GLB1)	3	M27508		+			+	+	
galactosyltransferase (=X13223 N- acetylglucosamide-(beta 1-	1	M13701							
4)-galactosyltransferase) galectin-9 isoform	1	AB006782	+			+		+	
gamma2-adaptin (G2AD)	1	AF068706	<u> </u>	-+		+	ļ	+	
gamma-actin	2	M37130				<del> </del>		<u> </u>	
gamma-aminobutyric acid (GABA) B receptor 1 (GABBR1)	2	AJ012187		+				+	
GATA-binding protein 2 (GATA2)	. 1	M68891				+		+	
GATA-binding protein 3 (GATA3)	1	M69106			+	+		+	
GCN5 (general control of amino-acid synthesis, yeast, homolog)-like 1 (GCN5L1)	3	D64007	+	+	+	+		+.	
GDP dissociation inhibitor 1 (GDI1)	1	D45021	+	+	+	+		+	high in adult brain
GDP dissociation inhibitor 2 (GCI2)	4	Y13286							
GDS-related protein (HKE1.5)	4	U68142	+	+	+	+		+	
gelsolin (amyloidosis, Finnish type) (GSN)	3	X04412		+	+	+	+	+	
general transcription factor II, I (GTF2I)	4	Y14946	+	+	+	+	+	+	
general transcription factor II, i, pseudogene 1 (GTF2IP1)	1	AF038968	+	+	+	+	+	+	high in fetal brain
general transcription factor ilF, polypeptide 1 (74kD subunit) (GTF2F1)	. 4	X64037	+	+	+	+		+	
general transcription factor IIH, polypeptide 3 (34kD	2	Z30093	В, Т						
subunit) (GTF2H3) general transcription factor IIH, polypeptide 4 (52kD	3	Y07595		+		+		+	
general transcription factor	1	U14134	+	+		+		+	
IIIA (GTF3A) general transcription factor	1	U02619		+		+			
IIIC, polypeptide 1 (alpha subunit, 220kD) (GTF3C1)		HANNEL							
general transcription factor IIIC, polypeptide 2 (beta subunit, 110kD) (GTF3C2)	3	D13636	+ -	+	+	+	+	+	
germline immunoglobulin heavy chain (IGHV@)	1	L06612							
germline immunoglobulin heavy chain, variabl region	-1	X92236							
germline immunoglobulin heavy chain, variable	1	X92343	· · · · · · · · · · · · · · · · · · ·						
region, (21-2)									·

								_	
GLE1 (yeast homolog)-like, RNA export mediator (GLE1L)	1	AF058922		+	+ .				
glia maturation factor, beta (GMFB)	1	AB001106	+	+		+		+	
glioma-associated oncogene homolog (zinc finger protein) (GLI)	1	X07384							
glioma-associated oncogene homolog (zinc finger protein) (GLI) (low	1	X07384							
score) globin, alpha 2	1	V00516		<u> </u>			<u> </u>		
glucocorticoid receptor	1	M32284						·	
(=M69104) glucocorticoid receptor	2	U80947	<u> </u>	+	+	+	_	+	•
glucos phosphate	1	L09105	<u> </u>	ļ		•	_	<u> </u>	
isomerase (CONTAINS LARGE REPEAT)			-						
glucosamine (N-acetyl)-6- sulfatase (Sanfilippo disease IIID) (GNS)	1	Z12173	+		,				
glucosamine (N-acetyl)-6- sulfatase (Sanfilippo disease IIID) (GNS) (non- exact 56%)	1	Z12173							
glucose transporter-like protein-III (GLUT3)	1	M20681		+	+	+	+	+	
glucose transporter-like protein-III (GLUT3) (low imatch)	1	M20681							
glucosidase, alpha; acid (Pompe disease, glycogen storage disease type II) (GAA)	1	Y00839	+	+		+		+	
glucosidase, beta; acid (includes glucosylceramidase) (GBA)	1	K02920	+	+	+	+.		+	
glutamate dehydrogenase 1 (GLUD1)	1	M20867		+	+	+	+	+	
glutamate-ammonia ligase (glutamine synthase) (GLUL)	12	X59834	+	+	+.	+		+	
glutamate-ammonia ligase (glutamine synthase) (GLUL) (low score)	1	Y00387							
glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), catalytic (72.8kD) (GLCLC)	1	M90656				+			
glutamine cyclotransferase	1	X71125		+	+				
glutamine-fructose-6- phosphate transaminase 1 (GFPT1)	1	M90516		+	·	+			
glutaminyI-tRNA synthetase	1	X72396			·				
glutaminyl-tRNA synthetase (QARS)	6	X76013	+	+	+	+		Ŧ	
glutamyl-prolyl-tRNA synthetase (EPRS)	1	X54326			$\neg$				
glutathione peroxidase 1 (GPX1)	2	M21304	+	+	+	+	+	+	
glutathione peroxidase 4 (phospholipid	7 1	X71973	+	+	+	+		+	
hydroperoxidase) (GPX4) glutathione S-transferase pi	1	U30897		+	+	+	+	+	
(GSTP1) glutathione S-transferase subunit 13 homolog	1	AF070657	<u> </u>				-		·
glyceraldehyde-3- phosphate dehydrogenase (GAPD)	12	J02642					+		-
(0/110)	1					1			

								-	C1/CA00/00005
glycogenin (GYG)	1	U31525		+	+	+	Т	+	
glycophorin C (Gerbich blood group) (GYPC)	1	X12496		+	+	+	<u> </u>	+	
glycoprotein M6B (GPM6B)	1 :	U45955	1	+	+	$t^{-}$	T	<del>                                     </del>	<del>                                     </del>
glycyl-tRNA synthetase (GARS)	1	U09587		+	+	+	<del>                                     </del>	+	
glyoxalase I (lactoyl glutathione lyase) (GLYI)	1	L07837	+	+	+	+		+	
golgi autoantigen, golgin subfamily a, 1 (GOLGA1)	1	U51587		+	-	+			
golgi autoantigen, golgin subfamily a, 2 (GOLGA2) (non-exact, 70%)	1	L06147							
golgi autoantigen, golgin subfamily a, 4 (GOLGA4)	1	U31906				<u> </u>		<u> </u>	
uoidi autoantideit, golgin	1 "	X75304	<del> </del>	+	+	+	<del> </del>	+	· · · · · · · · · · · · · · · · · · ·
subfamily b, macrogolgin (with transmembrane signal), 1 (GOLGB1)						-			
gp25L2 protein	4	X90872	1.2	┼	_	$\vdash$	-	╁	<del> </del>
grancalcin	8	M81637	<del> </del>	+	+	+	-	$\vdash$	<del> </del>
granulin (GRN)	16	X62320	+	+	+	+	<del>                                     </del>	+	
granulin (GRN) (low match)	1	X62320	<del>                                     </del>	<del>                                     </del>	<del> </del>	H	-	⊢.	
Granulysin (NKG5)	5	M85276	+		-	├—	_	+	
granzyme A (granzyme 1,	1	M18737	+	+	+	+	-	+	
cytotoxic T-lymphocyte- associated serine esterase (3) (GZMA)									
GRB2-related adaptor protein (GRAP)	1	U52518	Tonly						
Grb2-related adaptor protein 2 (GRAP2)	. 1	AF090456	·. T				+	<del>                                     </del>	
GRO1 oncogene (melanoma growth stimulating activity, alpha) (GRO1)	1	X54489				+		+	
growth arrest and DNA- damage-inducible gene (GADD153)	1	S40706							
growth arrest-specific 7 (GAS7)	4	AB007854		+	+				
growth factor receptor- bound protein 2 (GRB2)	1	X62852	В	+			+	+	
GS1 (protein of unknown function)	1	M86934		+	+	+			·
GS39 <b>55</b>	4	D87119		+	+	+		+	
GTP binding protein 1 (GTPBP1)	1	U87964		+	+	+			
GTP binding protein similar to S. cerevisiae HBS1 (HBS1)	1	U87791		+	+	+		+	
GTPase activating protein- like (GAPL)	1	AB011110		+	+	+		+	high fetal brain
GTP-binding protein (low match)		Z49068							
GTP-binding protein G(K), alpha subunit (=G(I) ALPHA-3)(=GTP-binding regulatory protein Gi alpha- 3 chain)	1	P08754							
Gu protein (GURDB)	2	U41387	+		+	+		+	
guanine nucleotide binding protein	1								
guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 2 (GNAI2)	4	J03004	+	+	+	+		+	

guanine nucleotide binding 7 M20597 + + + + + + + h protein (G protein), alpha inhibiting activity polypeptide 3 (GNAI3)	
protein (G protein), alpha inhibiting activity polypeptide 3 (GNAI3)	r,
inhibiting activity polypeptide 3 (GNAI3)	
polypeptide 3 (GNAI3)	
guanine nucleotide binding 2 X04409 B, T + + +	
protein (G protein), alpha	·
stimulating activity	
polypeptide 1 (GNAS1)	•
polypeptide (GNAST)	
guanine nucleotide binding 1 Z18859	
protein (G protein), alpha	
transducing activity	
polypeptide 2 (GNAT2)	
polypeptide 2 (GNA12)	•
guanine nucleotide binding 2 AF017656 + + + + +	
protein (G protein), beta 5	
(GNB5)	
protein (G protein), beta	
protein (G protein), beta	-
polypeptide 1 (GNB1)	
guanine nucleotide binding 2 AF011496 + + + +	
protein (G protein), q	
polypeptide (GNAQ)	
polypepinde (GNAC)	
guanine nucleotide binding 1 L25665 + + + + +	
protein-like 1 (GNL1)	• ]
exchange factor	
guanine nucleotide 1 X15610 + + + + +	
regulatory factor (LFP40)	
regulatory factor (LFP40)	•
GUANINE NUCLEOTIDE- 1 P25388	
BINDING PROTEIN BETA	
SUBUNIT-LIKE PROTEIN	<i>:</i>
12.3 (P205) (RECEPTOR	
OF ACTIVATED PROTEIN	•
OF ACTIVATED PROTEIN	
KINASE C 1) (RACK1)	
GUANINE- 1 U10860 + +	<del></del>
MONOPHOSPHATE   STORES	
SYNTHETASE (GMPS)	
) <del></del>	
guanosine monophosphate 1 M24470	
reductase (GMPR) (non-	
lexact. 72%)	
guanosine-diphosphatase 1 AF016032	
like protein	
guanylate binding protein 2 M55542 + + + + +	
11, interferon-inducible.	]
67kD (GBP1)	· i
auguriota Diagram and the Company of	
guanylate binding protein 6 M55543 + + + + + +	
2, interferon-inducible	1
(GBP2)	· [
H2A histone family, 1 Z83742	
member C (H2AFC)	I
<del>                                      </del>	<u>:                                      </u>
H2A histone family, 2 AF041483 + + + + +	
member Y (H2AY)	. •
	odropol elecci
Imambael (USDE)	adrenal gland
TO THE PARTY OF TH	
h2-calponin 1 D86059	
H-2K binding factor-2 1 L08904 + + + +	
	· · [
H3 histone family, member 1 Z83735	<u> </u>
H3 histone family, member 1 Z83735 K (H3FK)	ovarv
H3 histone family, member 1 Z83735 K (H3FK) H3 histone, family 3A 7 M11353 + + + + + high in 6	
H3 histone family, member 1 Z83735 K (H3FK)	·····,
H3 histone family, member 1 Z83735 K (H3FK) H3 histone, family 3A 7 M11353 + + + + + high in 6 (H3F3A)	· 1
H3 histone family, member 1 Z83735 K (H3FK) H3 histone, family 3A 7 M11353 + + + + + high in 6 (H3F3A) H3 histone, family 3B 15 Z48950 + + + + + high in 6	endothelial
H3 histone family, member 1 Z83735 K (H3FK) H3 histone, family 3A 7 M11353 + + + + + high in 6 (H3F3A) H3 histone, family 3B 15 Z48950 + + + + + high in 6 (H3.3B) (H3F3B)	· 1
H3 histone family, member 1 Z83735 K (H3FK) H3 histone, family 3A 7 M11353 + + + + + high in 6 (H3F3A) H3 histone, family 3B 15 Z48950 + + + + + high in 6	· 1
H3 histone family, member 1 Z83735	· 1
H3 histone family, member	· 1
H3 histone family, member 1 Z83735	•
H3 histone family, member K (H3FK)  H3 histone, family 3A 7 M11353 + + + + + high in 6 (H3F3A)  H3 histone, family 3B 15 Z48950 + + + + + high in 6 (H3.3B) (H3F3B)  hbc647 1 U68494 + + + + + high in 6 cells  heat shock 27kD protein 1 1 U12404 + + + + +	endothelial
H3 histone family, member 1 Z83735  H3 histone, family 3A 7 M11353 + + + + + + high in 6 (H3F3A)  H3 histone, family 3B 15 Z48950 + + + + + + high in 6 (H3.3B) (H3F3B)  hbc647 1 U68494 + + + + + + high in 6 cells  heat shock 27kD protein 1 (HSPB1)  heat shock 40kD protein 1 4 D85429 + + + + + + high in 6	endothelial
H3 histone family, member	endothelial
H3 histone family, member	endothelial estis
H3 histone family, member	endothelial
H3 histone family, member K (H3FK) H3 histone, family 3A 7 M11353 + + + + + + high in 6 (H3F3A) H3 histone, family 3B 15 Z48950 + + + + + + high in 6 (ells) hbc647 1 U68494 + + + + + + high in 6 (ells) heat shock 27kD protein 1 1 U12404 + + + + + + high in 6 (ells) heat shock 40kD protein 1 4 D85429 + + + + + + high in 6 (HSPF1) heat shock 60kD protein 1 3 M22382 + + + + + + + high in 6 (ells)	endothelial estis
H3 histone family, member K (H3FK) H3 histone, family 3A 7 M11353 + + + + + + high in 6 (H3F3A) H3 histone, family 3B 15 Z48950 + + + + + + high in 6 (ells) hbc647 1 U68494 + + + + + + high in 6 (ells) hbc647 1 U12404 + + + + + + + high in 6 (ells) heat shock 27kD protein 1 U12404 + + + + + + high in 1 (HSPB1) heat shock 40kD protein 1 4 D85429 + + + + + + high in 1 (HSPF1) heat shock 60kD protein 1 3 M22382 + + + + + + + + high in 1 (chaperonin) (HSPD1)	endothelial estis

			· .						
heat shock 70kD protein 5 (glucose-regulated protein, 78kD) (HSPA5)	13	X87949		+	+		+		5
heat shock 70kD protein 6 (HSP70B') (HSPA6)	4	X51757	+	+	+			<u> </u>	
heat shock 70kD protein 9B (mortalin-2) (HSPA9B)	2	L15189		+	+	+	+	+	· ·
HEAT SHOCK COGNATE	1	P11142							
heat shock factor binding protein 1 (HSBP1)	2	AF068754		<u> </u>		-			
heat shock protein 90	13	M27024	. +	+	+	+	+	+	high in many libraries
heat shock protein, DNAJ- like 2 (HSJ2)	1	D13388		+	+		+	+	
Hect (homologous to the E6-AP (UBE3A) carboxy!	1	U50078	. )	+	+	+			t-
terminus) domain and RCC1 (CHC1)-like domain (RLD) 1 (HERC1)			·						
hect domain and RLD 2 (HERC2)	1	AB002391	. +	+	+	+		+	
helicase-like protein (HLP)	1	X98378	. +	+		+	<u> </u>	+	
helix-loop-helix protein HE47 (E2A)	1	M65214						+	
hematopoietic cell-specific Lyn substrate 1 (HCLS1)	18	X16663	+		+	+		+	
heme oxygenase (decycling) 1 (HMOX1)	1 .	X06985		+	•	+	+	+	
HEMOGLOBIN ALPHA	1	P19015	·						
hemoglobin beta (beta globin)	5	AF117710					:		
hemoglobin, alpha 1 (HBA1)	301	V00491			+		+	+	
hemoglobin, alpha 1 (HBA1) (low match)	1	V00491				-			
hemoglobin, alpha 1 (low match)	1	V00493							
hemoglobin, alpha 1 (non- exact, 76%)	. 1	J00153							
hemoglobin, alpha 1 (non- exact, 82%)	1	V00493							
hemoglobin, beta (HBB)	129	∨00497	+	+	+	+	+	+	high in many libraries
hemoglobin, beta (HBB) (low match)	1	V00497							
hemoglobin, beta (HBB) (low match)	1	L48220							
hemokine (C-X-C motif), receptor 4 (fusin) (CXCR4)	1	D10924	+	+	+	+		+	
hemopoietic cell kinase (HCK)	5	M16591				+		+	
hepatitis C-associated microtubular aggregate protein p44	2	D28908	•. • •						
hepatoma-derived growth	1	D16431	+	+	+	+		+	
Hermansky-Pudlak syndrome (HPS)	2	U65676							
HERV-E integrase (non- exact 76%aa)	. 1.	AF026246							
heterogeneous nuclear protein similar to rat helix destabilizing protein (FBRNP)	2	S63912		+	+	+		+	
heterogeneous nuclear ribonucleoprotein (C1/C2) (HNRPC)	4	M16342							
heterogeneous nuclear ribonucleoprotein A/B (HNRPAB)	1	M65028	•	+	+	+	+	+	

heterogeneous nuclear ribonucleoprotein A1 (HNRPA1)	20	X12671	. +	+	<b>.</b>	+	+		High in alveolar rhabdomyosarcoma
heterogeneous nuclear ribonucleoprotein A2/B1 (HNRPA2B1)	3	M29064	+	+	+	+	+	+	High in activated T cell, fetal brain
heterogeneous nuclear ribonucleoprotein D (hnRNP D)	2	D55673	+	+	+	+	+	+	
heterogeneous nuclear ribonucleoprotein D-like (HNRPDL)	5	D89092	+	+	+	+	+	+	
heterogeneous nuclear ribonucleoprotein F (HNRPF)	1	L28010	+	+	+	+		+	
heterogeneous nuclear ribonucleoprotein F (HNRPF) (83%)	1	L28010					-		
heterogeneous nuclear ribonucleoprotein G (HNRPG)	2	Z23064		+	+	+	-	+	
heterogeneous nuclear ribonucleoprotein H (HNRPH) (FTP-3)	3	P55795							
heterogeneous nuclear ribonucleoprotein H (HNRPH) (low match)	1.	P31943							
heterogeneous nuclear ribonucleoprotein H1 (H) (HNRPH1)	2	L22009	÷	+	+	+		+	
heterogeneous nuclear ribonucleoprotein K (HNRPK)	21	S74678	+	+	+	+	+	+	
heterogeneous nuclear ribonucleoprotein R (HNRPR)		AF000364	·	+	+	+	+	+	
heterogeneous nuclear ribonucleoprotein U (scaffold attachment factor A) (HNRPU)	3	X65488	<b>+</b>	+	+	+	+	+	
hexokinase 1 (HK1)	2	X66957		+	+	+		+	· · · · · · · · · · · · · · · · · · ·
hexokinase 2 (HK2)	3	Z46376	+	+	+	+		+	
hexokinase 3 (HK3)	2	U51333							
hexosaminidase A (alpha polypeptide) (HEXA HGMP07I gene for	1	S62047							·
olfactory receptor	2	U76377							
High density lipoprotein binding protein (HDLBP)	2	M64098	+	+	+	+	+	+	·
high-mobility group (nonhistone chromosomal) protein 1 (HMG1)	5	X12597	+	+	+	+	+	+	
high-mobility group (nonhistone chromosomal) protein 1 (HMG1) (non- exact 60%)	1	D63874			,				
High-mobility group (nonhistone chromosomal) protein 17 (HMG17)	2	M12623	+	+	+	+		+	
high-mobility group (nonhistone chromosomal) protein 2 (HMG2)	2	M83665	+	+	+	+	+	+	
high-mobility group (nonhistone chromosomal) protein isoforms I and Y	2	L17131	+	+	+		+	+	
high-risk humanpapilloma viruses E6 oncoproteins targeted protein E6TP1 beta (=A8007900 KIAA0440)		AF090990.1					-	,	
histidine ammonia-lyase (HAL)		D16626			+.	only	<i>'</i>		

	,		•					-	· 2. 0. 200. 00000
histidyl-tRNA synthetase (HARS)	2	Z11518	+	+	+	+	+	+	
histocompatibility antigen (HLA-Cw3), class I	1	U31372		١					
histone deacetylase 1 (HDAC)	4	U50079	+	+	+	+	T	+	
histone deacetylase 1 (HDAC1)	2	D50405	+	+	+	+		+	
histone deacetylase 5 (NY-CO-9)	1	AF039691		+	+	1	<u> </u>	$\vdash$	
HK2 gene for hexokinase II	į.	Z46362	——————————————————————————————————————	+	-	$\vdash$	╁╌		
HL9 monocyte inhibitory receptor precursor	2	U91928				+			
HLA class I heavy chain (HLA-Cw*1701)	1 .							ļ .	
MANUSS HOCUS® heavy chain	1.7	X5E536		1	-				, , , , , , , , , , , , , , , , , , , ,
HLA class II SB 4-beta chain	1	X03022	<u> </u>			-	ļ .		
HLA class III region containing NOTCH4 gene	1	U89335	+	+	+	+	$\vdash$	+	
HLA-A	1	Z72423		┼	<del>  · · ·</del>	-	<del> </del>	├	<del></del>
HLA-A	2	AJ006020	<del></del>	<del> </del>	<b>-</b> -	<u> </u>	<b>⊢</b>	ऻ	<u> </u>
HLA-A*7402		AJ223060	<u> </u>	<del> </del>	<u> </u>	<del>   </del>	Ь.	<u> </u>	
HLA-A11	L	1		<u> </u>	<u>L.</u> .	<u> </u>	L	Ŀ	
· · - · · · · · ·		U02934							
HLA-B	2	X75953							
HLA-B .	• 1	X83401		<del>                                     </del>		<del>                                     </del>	<del>                                     </del>	<del> </del>	<u> </u>
HLA-B	1	X78426	<del> </del>	+		+	<del>                                     </del>	<del></del>	
HLA-B associated transcript-1 (D6S81E)	1	Z37166	+	+	+	+	+	+	
HLA-B associated transcript-2 (D6S51E)	2	M33509	+	+	+	+	$\vdash$		
HLA-B*1529	4	D44501		┼		-	├	<u> </u>	
HLA-Bw72 antigen	119	L09736	+	+-+	+	+	+	+	high in many libraries
HLA-C gene (HLA- Cw*0701 allele)	1	D83957						Ė	mgr in many inclanes
HLA-Cw*0701	9	Z46810	<del></del>	<del>                                     </del>			-	┢	
HLA-CW*0801	<del> </del>	D64151		+	_			<b>—</b>	
HLA-CW*1203	<del></del>	D64146		-		_		L	·
HLA-DC classii		1						L	
histocompatibility antigens alpha-chain (=K01160)	2	X00370							
HLA-DR alpha-chain	17	M60333	+	+	+	+	+	+	high in spleen
HLA-F (leukocyte antigen F)	3	X17093			+	+		+	
HMG box containing protein 1	3	AF019214							
hMLH1 (=U83845)	1	AB017806.1							
Hmob33	3	Y14155	<del></del>	1	:	$\vdash \vdash$	$\vdash$		
HMT1 (hnRNP	2	U80213	+	+	+	+		+	
methyltransferase, S. cerevisiae)-like 1 (HRMT1L1)	<del>.</del>	3302.10				,		Ť	
hnRNP C1/C2	2	D28382	-	<del>  </del>		$\vdash$	$\vdash$		<del></del>
homeobox (=X58250	1	M60721	·	╁		$\vdash$			
Mouse homeo box protein, put. transcription factor involved in embryogenesis					i				
and hematopoiesis) homeobox protein (HLX1)	1	U14326	·						
(=M60721) homeodomain-interacting								+	
	1	AF004849	+		+	+	i	т ;	1
protein kinase 3 (HIPK3) homolog of Drosophila past	1 2	AF004849 AF001434	+	+	+	+		+	
protein kinase 3 (HIPK3)	_			+					-

HPV16 E1 protein binding	<del></del>	1 1166262	<del></del>			,		,	· · · · · · · · · · · · · · · · · · ·
protein	1	U96131		+.	+			+	
HRIHFB2157	1	AB015344		+	+			+	
HRX-like protein (=AF010403 ALR)	1	Y08836							
hsc70 gene for 71 kd heat shock cognate protein	3	Y00371		·					
HSPC01Ž	1	AF077036.1	<u> </u>					<del>                                     </del>	
HSPC021	1	AF077207.1	<del>                                     </del>	_			$\vdash$	<del>                                     </del>	
HsPex13p	1	U71374	<del>                                     </del>			<b>—</b>		T	<del></del>
htra2-beta-2	1	U87836	+	+	+	+		+	
HU-K4	1	U60644	<del> </del>				_		
hunc18b2	1	U63533		+	+	+		+	
HUNKI	1	Y12059	+	+		+	+	+	·
huntingtin-interacting protein HYPA/FBP11 (HYPA)	1	AF049528							
hVps41p (HVPS41)	1	U87309					7		
hydroxyacyl-Coenzyme A dehydrogenase/3-ketoacyl- Coenzyme A	1	U04627		+	+		+		
thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), alpha subunit	· ·.					·			•
(HADHA) hydroxyacyl-Coenzyme A	1	D16481		+	+.	+		+	·
dehydrogenase/3-ketoacyl- Coenzyme A	,	310-01		T .	T.	Ψ.		*	
thiolase/enoyl-Coenzyme A									
hydratase (trifunctional protein), beta subunit (HADHB)	,						·   	ì	
hydroxysteroid (17-beta) dehydrogenase 1 (HSD17B1)	1	U34879		+		, 11	+		
hypothetical protein	1		<del>                                     </del>					$\vdash$	
hypothetical protein (AL008729) (dJ257A7.2)	1								
hypothetical protein (CIT987SK_2A8_1	1	U96629						•	
chromosome 8) hypothetical protein (clone	-	AE DE FOOA		·			٠		
24640)	1	AF055004		.					
hypothetical protein (clone ICRFp507G2490).	1	Z70222							
hypothetical protein (dJ1042K10.4) (non-exact 76%)	1	AL022238							
hypothetical protein (dJ465N24.1 similar to predicted yeast and worm proteins)	2	AL031432							
hypothetical protein (dJ487J7.1,1)	2	AL008730							
hypothetical protein (dJ753P9.2)	2	AL023653					$\dashv$		
hypothetical protein (DKFZp586I111)	1	AL050131.1							
hypothetical protein (J257A7.2)	1	AL008729							
hypothetical protein (KIAA0440) (=AF026504 R.norvegicus SPA-1 like	. 1	AB007900							
protein) hypothetical protein (L1H 3'									
region)	1								
hypothetical protein (S164)	1	P49756							

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hypothetical protein (similar to thrombospondin) (non- exact 56%)	1	AF109907							
hypothetical protein 3	1								
hypothetical protein B (HSU47926) (non-exact, 56%)	1	U47926		·					
hypothetical protein from BCRA2 region (CG005)	3	U50532	+	+	+	+		+	
hypoxia-inducible factor 1, alpha subunit (basic helix- loop-helix transcription	1	AF050115							
factor) (HIF1A) la-associated invariant gamma-chain (clones	1	M13555							<u> </u>
lambea-y (4,2,3))		1150010						ļ ,	
iduronate 2-sulfatase (Hunter syndrome) (IDS)	2	M58342	+	+	+	+		+	
lg heavy chain V region (=D11016)	1	L20779							
lg heavy chain variable region	. 2	M34024							
ig heavy chain variable region (VH4DJ) (clone T14.4)	. 1 .	Z75378			٠		-		
Ig heavy chain variable region (VH4DJ) (clone T22.18)	1	Z75392				·			
lg J chain	1	M12378		<del> </del>				-	
lg kappa	1	S49007			<del>                                     </del>	$\vdash$			
IG kappa light chain variable region A20	1	X63398							
lg kappa light chain, V- and J-region (=X59315)	1	D90158							
lg lambda light chain variable region (26- 34ITIIIF120)	1	Z85052							
lg mu-chain VDJ4-region	1	M16949			<b> </b>				······································
Ig rearranged anti-myelin kappa-chain (V-J4-region, hybridoma AE6-5)	1	M29469							
Ig rearranged H-chain mRNA V-region	2	M97920							·
lg rearranged light-chain V region (=D90158)	1 .	M74020			_				
IGF-II mRNA-binding protein 3 (KOC1) (non- exact, 75%)	1	U97188	+	+	+				·
lgG Fc binding protein (FC(GAMMA)BP)	1	D84239	+	+		+		+	
lgG heavy chain variable region (vH26)	-1 .	M83136							
IgM heavy chain (C mu, membrane exons)		X14939			ŀ.			<u> </u>	
IkB kinase-beta (IKK-beta)	1	AF029684		ļ				<u> </u>	
IL2-inducible T-cell kinase	2	U14177 S65186				-	_	-	-
(ITK) immediate early protein (ETR101)	1	M62831	+		+	+	+	+	
immunogloblin light chain (lambda)	1	D87018			<u> </u>	<u> </u>		$\vdash$	
immunoglobulin (CD79A) binding protein 1 (IGBP1)	1	Y08915	В, Т	+	+		+		
immunoglobulin C (mu) and C (delta) heavy chain (=K02878)	2	X57331							
immunoglobulin G Fc receptor IIIB	1	Z46223							
immunoglobulin gamma 3 (Gm marker) (IGHG3)	3	Y14737	+.			+		+	high in many libraries

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immunoglobulin gamma heavy chain variable region (=X61011)	1	Z6 <b>6542</b>			•				
immunoglobulin heavy chain (VI-3B)	1	X62109							
immunoglobulin heavy chain J region	1	X86356							
immunoglobulin heavy chain J region, B1 haplotype	2	X86355							
immunoglobulin heavy chain variable region (IGH) (clone 21u-48)	1	AF062126							
immunoglobulin heavy chain variable region (IGH) (clone 23u-1)	1	AF062212							
immunoglobulin heavy chain variable region V1-18 (IGHV@) (=X60503)	2	M99641			·				
immunoglobulin heavy chain variable region V3-43 (IGHV@)	2	M99672				·			Í
immunoglobulin heavy chain variable region V3-7 (IGHV@)	3	M99649					÷		
immunoglobulin IgH heavy chain Fd fragment	1	U07986	•						
immunoglobulin kappa light chain	1,	X58081				·			
immunoglobulin kappa light chain V-segment A27	1	X12686							·
immunoglobulin light chain	7	D86990						ĺ	
immunoglobulin light chain (low match)	1	D86996					•		
immunoglobulin light chain variable region (lambda IIIb subgroup) from IgM rheumatoid factor	T	L29157							
immunoglobulin M heavy chain V region=anti-lipid A antibody	1	S50735							
immunoglobulin mu (IGHM)	9	X57086	+	+	٠.	+		+	
immunoglobulin mu binding protein 2 (IGHMBP2)	1	L24544	T	+			+		
immunogiobulin superfamily, member 2 (IGSF2)	1 .	Z33642							
Immunoglobulin VH mRNA (487 bp) (=M99652 immunoglobulin heavy chain variable region V3-11	1	X61013							
(IGHV@)) imogen 38 (IMOGEN38)	<del></del>	Z68747		-	+	+	<u> </u>	+	
IMP (inosine	<u>'</u>	J05272	<del> </del>	+		+	-	<del>                                     </del>	
monophosphate) dehydrogenase 1 (IMPDH1)	,	300212							
IMP (inosine monophosphate) dehydrogenase 2 (IMPDH2)	2	L39210	+	+	+	*		+	
inc finger protein 151 (pHZ- 67) (ZNF151)	1	Y09723	+	+	+	+		+	·
inc finger protein, C2H2, rapidly turned over (ZNF20)	1	AF011573		+	+		·	-	
inducible poly(A)-binding protein (IPABP)	1	U33818	+	+	+	+		+	
inducible poly(A)-binding- protein (IPABP) (low match)	. 1	U33818							

			· ·						
inducible protein (Hs.80313)	2	L47738	+	.+	+	+		+	
inhibitor of DNA binding 2, dominant negative helix-	4	M97796	+	+	+	+	+	+	
loop-helix protein (ID2) inhibitor of kappa light	2	AF044195							
polypeptide gene enhancer in B-cells, kinase complex-	•				· ·				
lassociated protein (IKBKAP)						· .			
inositol 1,3,4-trisphosphate 5/6-kinase	1	U51336	+ -	+		*	+	+	
inositol 1,4,5 trisphosphate receptor type 1 (ITPR1)	1	U23850		+	+	+			
inositol 1,4,5-trisphosphate 3-kinase B (ITPKB)	2	X57206	В	+	+		+ ,		·
inositol monophosphatase	1	538980		1				ļ ,	
inositol polyphosphate-5- phosphatase, 145kD (INPP5D)	2	U84400	+	+	+	+		+	
Ins(1,3,4,5)P4-binding protein		X89399		+				+	
insulin-like growth factor 2 receptor (IGF2R)	5	Y00285	+	+	+	+		+	
integral membrane protein 1 (ITM1)	1	L38961			+	+		+	
integral membrane protein 2C (ITM2C)	1	AF038953	T		+		+,	+	
integral membrane protein Tmp21-I (p23)	3	U61734	+	+	+	+	+	+	
integrin beta 4 binding protein (ITGB4BP)	2	AF047433			+			+ -	
integrin, alpha 2b (platelet glycoprotein IIb of IIb/IIIa complex, antigen CD41B)	3	M34480		+			+		, , , , , , , ,
(ITGA2B) integrin, alpha 5	4	X06256		+			_		
(fibronectin receptor, alpha polypeptide) (ITGA5)	•	A00250		•	+		+	+	
integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide) (ITGAL)	6	Y00796							
integrin, alpha M	1	M18044							
componentreceptor 3, lalpha; also known as									
CD11b (p170), macrophage antigen alpha								. :	
polypeptide) (ITGAM) integrin, alpha X (antigen	.1	M81695	+	+				+	· .
CD11C (p150), alpha polypeptide) (ITGAX)									٠.
integrin, beta 1 (fibronectin	2	X07979				$\vdash$			
receptor, beta polypeptide, antigen CD29 includes	_				-				
MDF2 MSK12) (ITGB1)									
integrin, beta 2 (antigen CD18 (p95), lymphocyte	32	M15395	+	+		+		+	
function-associated antigen 1; macrophage antigen 1 (mac-1) beta subunit) (ITGB2)								i	
integrin, beta 7 (ITGB7)	1	M68892	+						
Integrin-linked kinase (ILK)	1	U40282	+	+	+	+		+	
intercellular adhesion molecule 1 (CD54), human rhinovirus receptor (ICAM1)	1	J03132	•			+	+	+	
intercellular adhesion molecule 2 (ICAM2)	1	X15606	+	+	+	+		+	

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6	X69 <b>819</b>	+					+	
1	127670		<del>                                     </del>			<del> </del>	+	
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1	M91196	W,	lymp	homa				
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1 .	M91196			<u> </u>	Γ			
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. 4.	X15949	+	+	+	+			
4	L05072	+	+	+	+		+	
1	U51127	+	+		+	<del>                                     </del>	-	
2	M63838	+	+	+	+		+	· ·
9	.103909	+	-	_	+	_	+	
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' .	F 32433					ļ	١.	
\$ **					1			
3	X84958		+	+	+		+.	
5 ·	M14660		<del>                                     </del>				<del>                                     </del>	,
. 5	X57351	. 1		+	-	+	+	
1	X57352	<del>                                     </del>	<del>                                     </del>	+	$\vdash$	+	+	· · · · · · · · · · · · · · · · · · ·
5	Y10313	<del> </del>	+	+	$\vdash$	<del> </del>	+	
2	M87503		+		+		+	
			1			<u>'</u>	ļ	
1	U64094				+			
1	U08988	Tactivate	ed	+			+	
2	U03187	+	F					only found in T cell
2	Y09328		+	+	+	+	+	<u> </u>
6	U82972		+		<del> </del>	<del>  .</del>		
	171		٠.			ľ		
1	U43672					$\vdash$		
9	M26062		<del> </del>			-		
6	D11086	+	<del>                                     </del>	+	├	-	+	
3	X52425	+	+		+	$\vdash$	+	
5	X12830		+		-		+	
1	M57230			-	-	<u> </u>	-	
						:		
						Ľ.		·
14	M296 <b>96</b>	+	1	-			+	
. 1	AF043123							
8	Y00787	+	<del>                                     </del>	+	_	+		High in activated T
			1					cells, bone and pancreatic islets
	1 1 4 4 7 9 1 1 2 9 1 1 2 6 1 9 6 3 5 1 1 14 1	1	1	1	1 M91196 W, I lymphoma  1 M91196 W, I lymphoma  1 M91196	1	1	1

interleukin 8 receptor alpha (IL8RA)	11	L19591				ļ		,	
interleukin 8 receptor, beta (IL8RB)	14	M94582		<u> </u>		-		-	
interleukin enhancer	3	U10323	+	+	+	+	<del> </del>	<del> </del>	Niet in the same
binding factor 2, 45kD		010323	•	*	*	*	+	•	high in uterus
interleukin enhancer	<del></del> 2	U10324	<del> </del>		<u> </u>	-	├	┞	
binding factor 3, 90kD	2 ,	010324				ŀ			
interleukin-1 receptor-	2	L76191	<del> </del>	+ -	1	+	├	1	
associated kinase 1		Libial		•	+	•		+	
interleukin-1 receptor-		U52112	<del></del>	<del>                                     </del>	<del> </del>	1	├	├	<u> </u>
associated kinase 1 (low match)									
interieukin-10 receptor,	5	U00672	******	<del>  + '</del>	+	+	<del>}</del>	1	<u> </u>
alpha (IL10RA) interleukin-11 receptor,		Z38102		+	+		_		
alpha (IL11RA)				<u> </u>	Ľ.			·	
INTERLEUKIN-14 PRECURSOR (IL-14) (HIGH MOLECULAR		P40222							
WEIGHT B-CELL						ļ.			
GROWTH FACTOR) (HMW-BCGF) (non-exact									
46%)	<u>.                                    </u>				Ľ	<u> </u>	Ι.		·
intestinal carboxylesterase; liver carboxylesterase-2 (ICE)	1	U60553		+			+		
inversin protein (non-exact 52%)	<u> </u>	AF084367							
IQ motif containing GTPase activating protein 1 (IQGAP1)	6	L33075							
IQ motif containing GTPase activating protein 2 (IQGAP2)	1	U51903		+		+			
isocitrate dehydrogenase 1 (NADP+), soluble (IDH1)	1 .	AF020038	+	+	+	+	+	+	
isocitrate dehydrogenase 2 (NADP+), mitochondrial (IDH2)	2	X69433	+	+	+	+	+	+	
isocitrate dehydrogenase 3 (NAD+) alpha (IDH3A)	2	U07681			+				
isocitrate dehydrogenase 3 (NAD+) gamma (IDH3G)	1 -	Z68907	+	+	+	+		+	
isolate Aus3 cytochrome b		AF042516	<u> </u>	-		-	┝		
(CYTB) isolate TzCCR5-179 CCR5	1	AF011524		-					
receptor (CCR5) isopentenyl-diphosphate delta isomerase (IDI1)	5	X17025	+	+	+	+		+	
Janus kinase 1 (a protein tyrosine kinase) (JAK1)	4	M64174	+	+	+	+		+	
Janus kinase 2 (a protein tyrosine kinase) (JAK2)	1	AF005216			<u> </u>			-	
Jk-recombination signal binding protein (RBPJK)	2	L07876						-	
JM1 protein	1	AJ005890	<del></del>	+		+	-	-	·
jumonji (mouse) homolog (JMJ)	1	U57592		+	+	+		Ŧ	
jun D proto-oncogene (JUND)	1	X51346	+	+	+	+		+	· · · · · · · · · · · · · · · · · · ·
jun dimerization protein	1	AF111167						_	only found in germ
junction plakoglobin (JUP)	1	M23410		+	+	+		+	

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kangai 1 (suppression of	1	U20770	+	+.	+	+	. +	+	2
tumorigenicity 6, prostate; CD82 antigen (R2								-	
leukocyte antigen,									
antigen detected by									
monoclonal and antibody (KAI1)			· ·						
karyopherin (importin) beta	2	L39793	+	+	+ -	+	+ -	+	
1 (KPNB1)	_		<u> </u>	·					
karyopherin (importin) beta	1	U72395	+	+	+.	+			
2 (KPNB2) karyopherin alpha 1	1	S75295	+	+	+		+	-	
(importin alpha 5) (KPNA1)	•	070200	· •		•				
karyopherin alpha 2 (RAG	1	U09559						-	
cohort 1, importin alpha 1) (DPNA2)	-							٠.	
karyopherin alpha 3	1	D89618		+			+	<del></del>	
(importin alpha 4) (KPNA3)									
karyopherin alpha 4 (KPNA4)	1	M17887		+	+	•			
Katanin (80 kDa) (KAT)		AF052432	<del> </del>	-	+	+		+	
KE03 protein	2	AF064604							
Kelch-like ECH-associated	1	D50922				$\vdash$			
protein 1 (KIAA0132)		- 550322							
(66%aa)	•							<u> </u>	
Keratin 8 (KRT8)	1	X74929		+	+	+	+	+	
ketohexokinase	1	X78678		+		+	+	-	
(fructokinase) (KHK) KIAA0001 (KIAA0001)	1	Q15391	<del></del>	1				-	
(72% aa)	•	Q10001		1	*				
KIAA0001 (KIAA0001) (76% aa)	. 1	Q15391							
KIAA0001 (KIAA0001) (non-exact 72%)	1	Q15391			·				
KIAA0002 (KIAA0002)	5	D13627	-	+	. +	+	-	+	
KIAA0005 (KIAA0005)	4	D13630	<del> </del>	+	+	+	┢	+	
KIAA0010 (KIAA0010)	<del></del>	D13635		+	<u> </u>	<u> </u>	-	+	
KIAA0016 (KIAA0016)	1	D13641	+ -	+	+	+	┝┷	+	<del></del>
KIAA0017 (KIAA0017)	2	D87686	<del> </del>	<u> </u>	<u> </u>	Ŀ	<b> </b>	<u> </u>	
KIAA0022 (KIAA0022)	2	D14664	<u> </u>	+	+	+	Ŀ	·	· · · · · · · · · · · · · · · · · · ·
KIAA0023 (KIAA0023)	1	D14689		+	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
, , ,					<u> </u>	L.,_	ļ	L.	
KIAA0024 (KIAA0024)	1	D14694	+	+	+	+	<u> </u>	+	
KIAA0025 (KIAA0025)	1	D14695	L	+	+	+	+	+	
KIAA0026 (KIAA0026)	2	D14812	1	+	+	+	<u> </u>	+	
KIAA0027	1	D25217	Ľ	+			_		
KIAA0032 (KIAA0032)	2	D25215	L	+	+	+			·
KIAA0040 (KIAA0040)	1	D25539	+	[ +	+	+		+	
KIAA0050 (KIAA0050)	4	D26069	·						
KIAA0053 (KIAA0053)	17	D29642	+		+	+	Γ		
KIAA0057 (KIAA0057)	1	D31762	+	+	+	+	+	+	high in fetal lung
KIAA0058 (KIAA0058)	11	D31767	+	<del> </del>	+	+		+	<u> </u>
KIAA0063 (KIAA0063)	3	D31884	+	+	+	+	_	+	
KIAA0064 (KIAA0064)	1	D31764	+	+	+	+	<del>                                     </del>	+	
KIAA0066	7	D31886	+	+	+	+	-	+	
KIAA0068	1	D38549	<del> </del>	+	+	+	+	+	<del></del>
KIAA0073	3	D38552		+	+	+	-	+	
KIAA0081	2	D42039	<del> </del>	+	<del>                                     </del>	+	-	+	
KIAA0084	2	D42043	+	+	-+-	+		+	
KIAA0085	26	U30498	+	+	+	+	+	+	
KIAA0088			<u> </u>	l .		<u> </u>	+	+	· · · · · · · · · · · · · · · · · · ·
L :_	3	D42041	+	+	+	+	<u> </u>		
KIAA0090	2	D42044	+	+	+	+	+	+	· · · · · · · · · · · · · · · · · · ·
KIAA0092 (KIAA0092)	1	D42054		+	+	<u> </u>	<u> </u>		<u> </u>

[KIAA0094	3	D42084			+	+		· ·	6
KIAA0095 (KIAA0095).		D42085					· · ·		·
KIAA0096	15	D43636	+	+	+	+		+	· · · · · · · · · · · · · · · · · · ·
KIAA0097 (KIAA0097)	1	X92474	т Т	+	+	-	+		
KIAA0099 (KIAA0099)	3	D43951	+	+	+	+	+	+	
KIAA0102 (KIAA0102)	2	D14658		+	•	+	+	+	
KIAA0105	<del></del>	D14661	В	+			+.	+	<u> </u>
KIAA0120	<u>.</u>	P37802		<u> </u>				H	
KIAA0120 (non-exact,	<del> 1</del>	M83106						├	
(65%)	•		:					l	
KIAA0121 (KIAA0121)	1	D50911	+	+	+	+		+	
KIAA0123	1	D21064		+	+	+		+	
KIAA0128	1	D50918	+	+	+	+		+	
KIAA0129 (KIAA0129)	1	D50919	<del>+</del>	+	+	+			
KIAA0130 (KIAA0130)	1	AF055995		+	+	+			
KIAA0136	2	D50926							·
KIAA0137 (KIAA0137)	1	AB004885	<del></del>	+	+	+		+	
KIAA0140 (KIAA0140)	1	D50930	+	+		+	<u> </u>	+	
KIAA0141 (KIAA0141)	3	D50931	<del></del>	-					
KIAA0144 (KIAA0144)	3	D63478	+	+	+	+		+	
KIAA0144 (KIAA0144) (low match)	1	D63478							
KIAA0144 (non-exact 61%)	1	Q14157		-		-		-	
KIAA0144 (non-exact 65%)	1	Q14157		-		-	_		
KIAA0146	2	D63480		+	+	+		+	
KIAA0148 (KIAA0148)	<del></del>	D63482		+	-	├	<del> </del>	+	<del></del>
KIAA0154	2	D63876	<del></del>	+	+	+	-	+	ļ <u>-</u>
KIAA0156	<del></del>	D63879	·	+	+	+	├—	+	
KIAA0160	2	D63881	·	<del>                                     </del>		<u> </u>	Ŀ	Ļ	
KIAA0161 (KIAA0161)	<del>-</del>	D79983	<del></del>	+		+			· · · · · · · · · · · · · · · · · · ·
KIAA0164 (KIAA0164)	3	D79986	·	<u> </u>		<u> </u>	├-	├─	
KIAA0167 (KIAA0167)	1	D79989		+				₩	
KIAA0168 (KIAA0168)	3	D79990		++	+	+	<u> </u>	+	
KIAA0169	3	D79991		+ -	<u> </u>	Ŀ	<u> </u>	<u>  `</u>	
KIAA0171 (KIAA0171)	3	D79993		+	+	+	<u>.</u>	+	
KIAA0174 (KIAA0174)		D79995	+	+	+	+		+	·
KIAA0179	2	D80001	<del></del>	1	+	+	<u> </u>	+	
KIAA0181		D80003		+	+	+		<u> </u>	
KIAA0183	. 1			<u> </u>	L	l <u>.</u>	<u> </u>	+	
KIAA0184	4	D80005	+	+	+	+	+	+	
1	1	D80006	+	<u> </u>	+	<u> </u>	<u>L</u>	+	
KIAA0191 (72% aa)	1	D83776		<u> </u>	· .	<u> </u>		╙	<u> </u>
KIAA0191 (non-exact 77%)	1	<u>                                     </u>					<u> </u>		
KIAA0193 (KIAA0193)	1	D83777	+	+	+	+		+	
KIAA0200 (KIAA0200)	1	D83785		+	+	+		+	
KIAA0210 (KIAA0210)	3	D86965						<u>L</u>	
KIAA0217	2	D86971	+.	+.	+	+		+	}
KIAA0219	2	U77700		+	+	+		+	
KIAA0222 (KIAA0222)	. 1	D86975							
KIAA0223	2	D86976							
KIAA0229	1-	D86982	+	+		İ			
KIAA0232 (KIAA0232)	1	D86985		+	+	+		+	
KIAA0233 (KIAA0233)	1	D87071						Π	
KIAA0235	2	D87078	+	+	+	+			
KIAA0239	1	D87076	+.	+				T	

MANUSIO GOS CHOST BORN	, ,								C1/CA00/00003
KIAA0239 (non-exact 80%) KIAA0240	ŀ	D87076							
KIAA0242	1	D87077							
	4	D87684	+	+	+	+	+	+	
KIAA0248	2	D87435		+	+	+		+	
KIAA0249 (KIAA0249)	3	D87436	+ -	+	+	+	Т	+	
KIAA0253	5	D87442	+	+	+	+	+	+	
KIAA0254 (KIAA0254)	. 1	D87443		+	+	+			
KIAA0255(KIAA0255)	· 4	D87444		+	+	+	T	+	
KIAA0262 (KIAA0262)	3	D87451	+	+	+	+	1	+	
KIAA0263 (KIAA0263)	1	D87452	+	+	+	+.	1	+	
KIAA0264	3	D87453		+	+	+	<del>                                     </del>	+	
KIAA0268	1 1	D87742	+	+	<u> </u>	+	† –	+	
KIAA0269	1	Q92558		T			<del> </del>	<del>                                     </del>	•
KIAA0275 (KIAA0275)	13	D87465	+	+	<del>                                     </del>	+		+	<del></del>
KIAA0304 (KIAA0304)	2	AB002302	+	+	+	+	+	+	
KIAA0308 /	2	AB002306		+	+ .	<del> </del>	╁	+	
KIAA0310 (KIAA0310)	1	AB002308	<del></del>	+	+	+	┼	+	
KIAA0314 (=U96635 M.musculus ubiquitin protein ligase Nedd-4)	3	AB002312							
KIAA0315 (KIAA0315)	4	AB002313		+	+	+	+	+	
KIAA0325 (=L08505 R.norvegicus cytoplasmic dynein heavy chain (MAP 1C))	2	AB002323						İ	
KIAA0329 (KIAA0329)	1	AB002327		+	+	+	├—	+	
KIAA0330	1	AB002328	+	+	+	<del> </del>	<del> </del>	+	· · · · · · · · · · · · · · · · · · ·
KIAA0332	-1	AB002330		+	+	+		+	
KIAA0333	2	AB002331	<u> </u>	+	+	+	+	+	
KIAA0336 (KIAA0336)	3	AB002334	+	+	+	+	<u> </u>	+	
KIAA0336 (KIAA0336) (low	1	AB002334		<u> </u>	<u> </u>	<u>.                                    </u>		<u> </u>	
match)				l	1		ł	-	
KIAA0342 (KIAA0342)	1.	AB002340		+	+			+.	
KIAA0344 (KIAA0344)	2	AB002342				+		+	
KIAA0354 (KIAA0354)	1	AB002352	+	+	+	+		+	
KIAA0365 (KIAA0365)	3	AB002363	+	+	+	+	+	+	
KIAA0370	60	AB002368		+	+	+	+	+	
KIAA0372 (KIAA0372)		AB002370							
KIAA0373 (KIAA0373)	1	AB002371		+	-	+			
KIAA0375 (KIAA0375)	1	AB002373		+		+			
KIAA0377 (KIAA0377)	1	AB002375		+		+	+		
KIAA0379	1	AB002377				+			
KIAA0379 (non-exact, 65%)	1	AB002377							
KIAA0380 (KIAA0380)	1	AB002378	+	+		+	-	+	
KIAA0380 (KIAA0380)	1	AB002378				<u> </u>	lacksquare	_	,
(60%aa) KIAA0382 (KIAA0382)	2	AB002380		+	+	+		+	
KIAA0383	1	AB002381		$\vdash$			Н		
KIAA0386 (KIAA0386)	5	AB002384		$\vdash$					
KIAA0392	1	AB002390		$\vdash$	-	$\vdash$	$\vdash$		<del></del>
KIAA0397 (KIAA0397)	4	AB007857		+	+	+	+	+	·
KIAA0403	3	AB007863	-	$\vdash$	-	$\vdash$	$\vdash$		•
CICLE INC.		1		igsquare					
KIAA0404	1	AB007864		+ 1	. 1	+			· ·
KIAA0404 KIAA0409	1	AB007869		+					·
i		1	+	L I		+		+	

1121 A B B B B B B B B B B B B B B B B B B			·					_ • •	Ç1/CA00/00003
KIAA0428 (KIAA0428)	9	Y13829					L		
KIAA0429 (KIAA0429)	2	AB007889	+	+	+	+	$\prod$	+	
KIAA0430 (KIAA0430)	2.	AB007890		T					only in ovary
KIAA0432 (KIAA0432)	2	U86753	T	+	+	Т	T		
KIAA0435 (KIAA0435)	1	AB007895				1			
KIAA0438 (KIAA0438)	-1	AB007898		+	+	+		+	
KIAA0447 (KIAA0447)	3	AB007916	+	+	+	+	1	+	<del>                                     </del>
KIAA0449	1	AB007918		+		1		+	
KIAA0456	1	AB007925	<u> </u>	+	+	+	1	+	
KIAA0458 (KIAA0458)	1	AB007927	İ	1		$\top$	<b>T</b>	1	
KIAA0462	1	AB007931	+	+	+	+	<del>                                     </del>	+	
KIAA0465	1 .	.4B007934		1 1+1	17.	+.	1.	1 =	100
KIAA0476 (KIAA0476)	1	AB007945		+	+	+	†	<del> </del>	
KIAA0489	1 1	AB007958		<del> </del>	1	+-	$\vdash$	+-	
KIAA0494 (KIAA0494)	1	AB007963	+	+	+	+	┼-	+	
KIAA0515	1	AB011087	+	+	+	+	$\vdash$	+	
KIAA0521	3	AB011093	+	+	<del>                                     </del>	╫	-	+	
KIAA0525	+	AB011097		+	├	╅-	├-	+-	<del>                                     </del>
KIAA0530	1	AB011102	<u> </u>	+-	+	+	$\vdash$	-	<u> </u>
KIAA0532	1	AB011104	+	+	+	+	<u> </u>	+	
KIAA0537 (KIAA0537)	+	AB011109		<b>↓</b>	<u>                                     </u>	╀`	-	Ļ <u>`</u>	·
KIAA0540	+ -	AB011112	+	+	+	+	<u> </u>	+	
KIAA0543	<del>                                     </del>	AB011115		<del>                                     </del>	+	+	_		
KIAA0544	<del>                                     </del>	AB011116	ļ		+	1	ļ	+	
KIAA0549	2	AB011121	<u></u>	+		+	<u> </u>	+	
KIAA0551	2	AB011123		+	+	+	ــــــ	+	
KIAA0554				+	<u> </u>	<u> </u>	<u> </u>	+	
KIAA0561	8	AB011126		+	+	+	Ŀ	+	
KIAA0562 (KIAA0562)	-	AB011133		+		+			
KIAA0563 (KIAA0563)	1	AB011134				<u> </u>		<u> </u>	
KIAA0569 (KIAA0569)	1	AB011135				<u> </u>	<u> </u>	_	·
,	2	AB011141		+	+	+		+	
KIAA0571 (KIAA0571) KIAA0573	2	AB011143		+	+	+			
	1	AB011145		+		+		+	
KIAA0576	1	AB011148							
KIAA0580	1	AB011152							
KIAA0584	1	AB011156		+					
KIAA0592	3	AB011164	+	+	+	+	`	+-	
KIAA0596	1	AB011168		+	+				
KIAA0598 (KIAA0598)	1	AB011170		+	+	+			·
KIAA0608	1 .	AB011180			+	+			
KIAA0614	2	AB014514	+	+	+	+	_	+	
KIAA0615 (KIAA0615)	1	AB014515			<del> </del>		$\vdash$	_	
KIAA0621	1	AB014521		+	+	<del>                                     </del>	<del>                                     </del>	+	
KIAA0648	1	AB014548		+	+	+	$\vdash$	+	
KIAA0652 (KIAA0652)	1	AB014552	+ .	+.	+	+		+	
KIAA0668	1	AB014568		<del>                                     </del>	-	<del>                                     </del>	├─	-	
KIAA0669	1	AB014569		<del> </del>	<u> </u>	<del>                                     </del>			
KIAA0671 (KIAA0671)	1	AB014571	<del></del>		+	+	$\vdash$	+	
KIAA0675 (KIAA0675)	1	AB014575	<del></del>	+		+	+	-	
KIAA0676	<del>                                     </del>	AB014576	<del></del>	+	+	+	Ė	+	·
KIAA0677 (KIAA0677)	2	AB014577		+	+	+	+	+	
KIAA0678	1	AB014578	+	+	+	+	<u> </u>	+	
KIAA0679	6	AB014579	· · · · · · · · · · · · · · · · · · ·	+	+				
		ABU143/8	<u> </u>	+	*	+		+	

LAMB2) (LAMC1)	<b>-</b>	303202	т		+			+	٠.
(3' region) aminin, gamma 1 (formerly)		J03202	+					<u> </u>	
Ribosomal protein SA (LAMR1) aminin receptor homolog	<del></del>	S35960						, 	
score) aminin receptor 1 (67kD);	20	D28372 X15005	+		+	+	+	+	high in many librarie
actotransferrin (LTF) aminin binding protein (low	1	U07643	+			+		+	high in bone marrow
actate dehydrogenase B LDHB)	6	X13794	+	+	+	+	+	+	high in fetal lung fibrablast
actate dehydrogenase A LDHA) (non-exact, 81%)	1	X02152			-				
actate dehydrogenase A LDHA)	3	X02152		+	+	+	+	+	
. apoferritin	3	X03742							
ruppel-type zinc finger protein, ZK1	1	AB011414.1							
orotein Zf9 (non-exact 76%)			·	+	+		+	+	
orotein Zf9 Kruppel-like zinc finger	3	U51869 U44975	+	+	+	+	+	+	
Kruppel related gene clone pHKR1RS) Kruppel-like zinc finger	1	M20875						Ŀ	
(rueppel-related DNA- pinding protein (TF6) (low- match)	<b>1</b>	M61869							
inesin-like DNA binding protein	1	AB017430	+	+	+	+		+	
inesin family member 5B KIF5B)	2	X65873		+	+	+	-	-	
inectin 1 (kinesin receptor) KTN1)	1	D13629			<u> </u>	-	$\vdash$		
iller cell lectin-like eceptor subfamily C, nember 4 (KLRC4)	1	U96846							
eceptor subfamily B, nember 1 (KLRB1)	1	U11276			+	+		+	
(IAA0991 iller cell lectin-like	1	AB023208.1							
(IAA0906	1	AB020713	+	+	+	+		+	
(IAA0892		AB020699	+	+	+	+		+	
KIAA0873	1	AB020680		+	+.	+		+	٠,
(IAA0871 (non-exact 88%)	1	AB020678		†	<u> </u>		T		
KIAA0862	1	AF054828	<u> </u>	+	+	+	<del>                                     </del>	1	
KIAA0860	1	AB020667		+	<del>                                     </del>	+	-	Ħ	
KIAA0856	1	AB020663		+	+	+	1	+	<del> </del>
KIAA0854	1	AB020661	+	+	+	+	-	+	
KIAA0823	. 1	AB020630		+	<del>                                     </del>	<del> </del>	1	┼	
KIAA0798 (KIAA0798)	1	AB018341		+	<del>                                     </del>	+-	$\vdash$	<del>ا</del>	<del> </del>
KIAA0796	1	AB018339		+-	+	+	<del> </del>	+	Ingil in Di 11 au Onia
KIAA0782	1	AB018325	<del></del>	+ +	<u></u>	+	├	<del> </del>	high in BPH stroma
(IAA0769 (KIAA0769)	2	AB018312		++	+	+	ļ	1	
(IAA0763 (KIAA0763)	2	AB018306	+	+	+	+	$ldsymbol{ldsymbol{ldsymbol{eta}}}$	+	
KIAA0748 (KIAA0748)	3	AF014837 AB018291	+	+	+	+		+	
KIAA <b>0700</b> KIAA0737 (KIAA0737)	1	AB014600		+	+	+		+	
KIAA0699	1	AB014599	+	+	+	+		+	
KIAA0697	1	AB014597			1				
(IAA0692	1	AB014592	+	+	+	+		+	
KIAANSOO	1	A P 0 1 7 5 0 2	1	<del></del>	<del></del>	+ -	+	+	<del> </del>

latent transforming growth factor beta binding protein 1 (LTBP1) LAZ3/BCL6 (=Z79582;D28522/4) LDLC lecithin-cholesterol acyltransferase (LCAT) (non-exact, 66%) lectin, galactoside-binding, soluble, 2 (galectin 2) (LGALS2) lectin, galactoside-binding, soluble, 3 binding protein (galectin 6 binding protein) (LCALS3BP)	1 1 5	M34057  Z79581  Z34975  M17959  M87842  L13210	+	+	+	+		+	
LAZ3/BCL6 (=Z79582;D28522/4) LDLC lecithin-cholesterol acyltransferase (LCAT) (non-exact, 66%) lectin, galactoside-binding, soluble, 2 (galectin 2) (LGALS2) lectin, galactoside-binding, soluble, 3 binding protein (galectin 6 binding protein) -(LCALS3BP) leucine rich repeat (in FLII)	1	Z34975 M17959 M87842		+	+	+		+	
LDLC lecithin-cholesterol acyltransferase (LCAT) (non-exact, 66%) lectin, galactoside-binding, soluble, 2 (galectin 2) (LGALS2) lectin, galactoside-binding, soluble, 3 binding protein (galectin 6 binding protein) (LCALS3BP) leucine rich repeat (in FLII)	1	M17959 M87842		+	+	+	·	+	
acyltransferase (LCAT) (non-exact, 66%) lectin, galactoside-binding, soluble, 2 (galectin 2) (LGALS2) lectin, galactoside-binding, soluble, 3 binding protein (galectin 6 binding protein) (LCALS3BP)	1	M87842	+						
lectin, galactoside-binding, soluble, 2 (galectin 2) (LGALS2) lectin, galactoside-binding, soluble, 3 binding protein (galectin 6 binding protein) (LGALS3BP) leucine rich repeat (in FLII)	1		+						
lectin, galactoside-binding, soluble, 3 binding protein (galectin 6 binding protein) (LCALS3BP) leucine rich repeat (in FLII)		L13210	+	, 1		+			
leucine rich repeat (in FLII)	5	1		+	+	+	·	+	·
interacting protein 1 (LRRFIP1)		AJ223075	+	+	+	+	+	+	
leucocyte immunoglobulin- like receptor-5 (LIR-5)	2	AF072099			-	+			
leucocyte immunoglobulin- like receptor-6a (LIR-6)	7	AF025530	·						
leucocyte immunoglobulin- like receptor-7 (LIR-7)	2	U82275		+					only found in CNS
leukemia virus receptor 1 (GLVR1)	1	L20859	+	+	+	+		+	
leukocyte adhesion protein p150,95 alpha subunit leukocyte antigen, HLA-A2	1	M29484						-	
	3	Y13267			·				
leukocyte immunoglobulin- like receptor (MIR-10)	3	AF025528		+					
leukocyte tyrosine kinase (LTK) leukocyte-associated Ig-	. 1	X60702 AF013249	+			.+			found only in blood
like receptor 1 (LIAR1)	<del>- 6 -</del>	J03459	+	+		+	+	+	
(LTA4H) leupaxin (LDPL)	2	AF062075	+	·	_	+		+	
ligase I, DNA, ATP-	1	M36067	В, Т	+	+		+	+	
dependent (LIG1) LIM and SH3 protein 1 (LASP1)	. 2	X82456	+	+	+	+	+	+	
LIM domain kinase 2 (LIMK2)	2	AC002073	+	+	+	+		+	
line-1 protein	1		<del></del>						
Line-1 repeat mRNA with 2 open reading frames	1	U93566	+	+	+	+	+	+	
Line-1 repeat with 2 open reading frames	1	M22332	+	+	+	+	+	+	high in gastric tumor
LINE-1 REVERSE TRANSCRIPTASE HOMOLOG	1 ."	P08547							
lipase A, lysosomal acid, cholesterol esterase (Wolman disease) (LIPA)	4	X76488	+	+	+	+		+	
lipase, hormone-sensitive (LIPE)	1	L11706	+	+				+	
LMP7	1	L11045							
Lon protease-like protein (LONP)	2	X74215	+	+	+	+		+	
low density lipoprotein- related protein 1 (alpha-2- macroglobulin receptor) (LRP1)	2	AF058414					+		only in liver
low density lipoprotein- related protein-associated protein 1 (alpha-2- macroglobulin receptor- associated protein 1) (LRPAP1)	1	M63959		+	+		+	+	

			•		•				
low density lipoprotein- related protein-associated protein 1 (alpha-2-	1	M63959							
macroglobulin receptor- associated protein 1)						ļ ·	ļ.		
(LRPAP1) (non-exact, 75%)								'	
low-affinity Fc-gamma receptor IIA	1	L08107		1.			<u> </u>	<u> </u>	
LPS-induced TNF-alpha factor (PIG7)	9	AF010312	+	+	+	+	+	+	
Lst-1	1	U00921	+	+	+	+		+	
L-type amino acid transporter subunit LAT1	. 1	AF104032					$\vdash$		
lung resistance-related protein (LRP)	1	X79882	+	+	+	+		+	
Lymphocyte antigen 75 (LY75)		AF011333	В				$\vdash$		
lymphocyte antigen 9 (LY9)	2	L42621	<del>                                     </del>	+	<del>                                     </del>	<del> </del>	H	<del>                                     </del>	
lymphocyte antigen HLA- B*4402 and HLA-B*5101	. 2	L42345					-	-	
lymphocyte cytosolic protein 1 (L-plastin) (LCP1)	42	J02923							
lymphocyte cytosolic	.4.	U20158		<del></del> _	lymp	hom	a, T	activ	ated
protein 2 (SH2 domain- containing leukocyte protein of 76kD) (LCP2)							_,		
lymphocyte glycoprotein T1/Leu-1	2	X04391	+		+	T .			
lymphocyte-specific protein 1 (LSP1)	16	M33552	+	+	+	+	_	+	· ·
lymphocyte-specific protein tyrosine kinase (LCK)	. 7	M36881		+		<b></b> -		+	
lymphoid phosphatase LyP1	1	AF001847							
lymphoid-restricted membrane protein (LRMP)	4	U10485	+		+	+			
lymphoid-specific SP100 homolog (LYSP100-A)	1	U36500						+	
lymphoma proprotein convertase (LPC)	2	U33849	+	+	+	+		+	
LYSOSOMAL PROTECTIVE PROTEIN	1	P10619							
PRECURSOR (CATHEPSIN A) (CARBOXYPEPTIDASE C)									
lysosomal-associated		J04182	+	I					
membrane protein 1 (LAMP1)	'	J04102	*	+	+	+	+	+	
Lysosomal-associated	1	J04183	<del> </del>	+	+	+	+	+	
membrane protein 2 (LAMP2)	*.				İ				
lysozyme (renal amyloidosis) (LYZ)	39	M19045	. +	+	+	+		+	
lysyl-tRNA synthetase (KARS)	2	D32053	+	+	+	+		+	
M phase phosphoprotein 10 (U3 small nucleolar	1	X98494				•			
ribonucleoprotein) (MPP- 10)	<u></u> .			.			•		
M1-type and M2-type pyruvate kinase	2	X56494							
m6A methyltransferase	. 7	AF014837	+	+		+			
(MT-A70)		71222			<del></del> -	- +			
mab-21 (C. elegans)-like 1 (MAB21L1)	1	U38810		+	+	+	ŀ	+	
(M1-A70) mab-21 (C. elegans)-like 1 (MAB21L1) MacMarcks macrophage-associated	1	X70326	+	+ +	+	+	+	+	

	•							- `	21/CA00/00005
MADS box transcription enhancer factor 2,	1.	U49020		+	+	+		+	
polypeptide A (myocyte									
enhancer factor 2A)				ŀ			1	1	
(MEF2A)	·							<u>L:</u>	
MADS box transcription enhancer factor 2,	1 -	L08895		+	+	+		+	
polypeptide C (myocyte	,				Ι.			1	1
enhancer factor 2C)			ļ		Ī	1			
(MEF2C)		,			İ	1.			·
major cytoplasmic tRNA- Val(IAC) (=M33940)	1	X17516		T			Π	1	
major histocompatibility	1	M95531	ļ. —	<del> </del>	-	┼—	<u> </u>	├	
complex class I beta chain	•	1		, .		l		1	•
(HLA-B)									
major histocompatibility complex, class I, A (HLA-A)	41	Z93949	+	+ ,	+	+		<b>.</b> + ,	high in villous
major histocompatibility	1	Z72422	<del> </del>	├─~		⊢		₩	adenoma
complex, class I, A (HLA-A)	•				ļ			· .	
(low match)					İ				
major histocompatibility complex, class I, C (HAL-	82	M24097	+	+	+.	+	+	+	,
IC)					١.				
major histocompatibility	77	M20022	+	+	+	+	├-	+	
complex. class I. E (HLA-E)						Ĺ	Ĺ	Ľ	
major histocompatibility complex, class II, DM	2	U15085	+	+	+	+	Ι.	. +	
BETA (HLA-DMB)									
major histocompatibility	10	M57466	+	+	+	+	-	+	<u> </u>
complex, class II, DP beta						'	l	l '	·
1 (HLA-DPB1)						1			
major histocompatibility complex, class II, DR beta	9	∨00522	+	+	+	+		+	
1 (HLA-DRB1)						l ·			
Major histocompatibility	2	M24070		+	+	<del>                                     </del>	+	+	
complex, class II, Y box- binding protein I; DNA-								ł	
binding protein B (YB1)			٠.			ŀ	]		·
malate dehydrogenase 1,	1.	D55654	+	+	+	+	+	+	
NAD (soluble) (mdh1)			<b>l</b> .						
malate dehydrogenase 1, NAD (soluble) (MDH1)	3	D55654		+	+		+	+	
malonyi-CoA	2	AF097832	·	$\square$					
decarboxylase precursor	2	AF091032	ŀ						, [
maltase-glucoamylase	1	AF016833			-	+	<u> </u>		
(mg)	·								
manic fringe (Drosophila) homolog (MFNG)	1	U94352	+	+	+	+		+	
mannose phosphate	1	X76057		+	+	+	-	+	
isomerase (MPI)		7.1.0007			•			•	
mannose phosphate	2	X76057		+	+	+		+	
isomerase (mpi) mannose-6-phosphate		VECTET			·		اا	لبا	
receptor (cation	3 .	X56253		+	+		+	+	, ,
dependent) (M6PR)									
mannose-P-dolichol	1	AF038961		+	+	+		+	
utilitzation defect 1 (MPDU1)		[							
mannosidase, alpha B,	1	U60885		+		+	+	+	· · · · · · · · · · · · · · · · · · ·
livsosomal (MANB)	·				i	*		7	
mannosyl (alpha-1,3-)-	1	M55621	+	+	+	+	+	+	
glycoprotein beta-1,2-N- acetylglucosaminyltransfer									
ase (MGAT1)		İ							
map 4q35 repeat region	1	AF064849				$\vdash$			
MAP kinase-interacting	2	AB000409		+	+	+	+	+	
Iserine/threonine kinase 1					-			.	
(MKNK1) MAP/ERK kinase kinase 3									
(MEKK3)	5	U78876	. 1	+					
MAP/ERK kinase kinase 5		D84476		+	+		+		
(MEKK5)	'	24.7.0	j		•		`	l	
		<del></del>					1		

· ·										100/0	0003	
MAP/microtubule affinity- regulating kinase 3 (MARK3)	4	M80359		+	+			+	٠.			;•
Marenostrin protein	1	Y14441	<del>                                     </del>	+	_	1	-	-			<u> </u>	
MASL1	<del>                                     </del>	AB016816	<del> </del>	+	<del>                                     </del>	-	├-	<del> </del>	<del> </del>	<del></del>		<u> </u>
MAX dimerization protein (MAD)	3	L06895		<del> </del>				+		:		
MaxiK potassium channel beta subunit	1	AF035046		<del></del>		<u> </u>	$\vdash$	-				<del></del>
MBP-2 for MHC binding protein 2	1	X65644	<u> </u>	+	+	+	<del>  -</del>	+				
Meis (mouse) homolog 3 (MEIS3)	. 1.	U68385		+	+	+		+				
melanoma-associated	1	M12154		<del> </del>			-				· - ·	-
(melanotransferrin)	).	1	334			l	1	l	·		•	
membrane cofactor protein (CD46, trophoblast-	4	X59405	1	+	+	+	_	+				
lymphocyte cross-reactive antigen) (MCP)												
membrane component	4	D14696	<del>                                     </del>	+	+	+	+	+	<del></del>	- ,-		
chromosome 17, surface marker 2 (ovarian					·							,
carcinoma antigen CA125) (M17S2)												
membrane metallo- endopeptidase (neutral	2	J03779	В		+	+	+	+				
endopeptidase, enkephalinase, CALLA, CD10) (MME)												•
membrane protein, palmitoylated 1 (55kD) (MPP1)	2	M64925		+	+	+	+	+			·-	,
meningioma expressed antigen (MGEA)	1	U94780	<u> </u>			+				<del></del>	<del></del>	
meningioma-expressed	.1	U73682	+	+		+	+				<del></del>	
Menkes Disease (ATP7A) putative Cu++-transporting P-type ATPase	1	L06133		+							<del>-</del>	
metallothionein 2A (MT2A)	1	V00594	<del> </del>	+	+	+	+.	+		·		_
metaxin 1 (MTX1)	1	U46920		+		+		+				<del></del>
methionine	2	X68836	+	+	+	+		+	<del></del>			
adenosyltransferase II, alpha (MAT2A)											•	
methyl-CpG binding domain protein 1 (MBD1) (non-exact 59%aa)	1	Y10746										
methylene tetrahydrofolate dehydrogenase (NAD+	2	X16396	+	+	+	+		+		٠.		
dependent), methenyltetrahydrofolate						٠.			•			•
cyclohydrolase (MTHFD2)										•		
methylenetetrahydrofolate dehydrogenase (NADP+	1	J04031		+	+	+	+	+				-
dependent), methenvitetrahvdrofolate	·	·				·						
cyclohydrolase, formyltetrahydrofolate synthetase (MTHFD1)												٠
methyltransferase, putative	2	AJ224442	ļ <del></del>							<del></del>		
MHC antigen (HLA-B) (=L42024)	. 1	U14943										
MHC class 1 region	2	AF055066		<del>                                     </del>				-				
MHC class I antigen (HLA-A2)	1	U70863			$\neg$							
MHC class I antigen (HLA- A33)	1	U19736					$\dashv$	-			-	
MHC class I antigen (HLA-C)	1	U38975			-			$\dashv$				
			L									

	•						- 1	C1/CA00/00003
1	U52813							
2	AF015930	-						
1	U36687							
2	X13112		·					
1	U67331	·				٠		
1 .	U67330							
1								·
				'	, 1			
1	AF035648							
1	U52175							
1	D83030							
. 1	U5 <b>643</b> 4							·
1	U58469							
1	U06697							
2 .	L07950		<del>                                     </del>	-	-		-	· · · · · · · · · · · · · · · · · · ·
1	Flp							
1	U18660							
-		<u> </u>	<del></del>			<u> </u>		
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	*				<u> </u>	_		
1	L56139			<del> </del>		<del>                                     </del>	<b></b> -	· · · · · · · · · · · · · · · · · · ·
1	M19670		·					·
1	X91625						_	
1	L14848				+			
1	U61274							
1	L18885							
	2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028598 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 FIp 1 U18660 1 U18661 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 L56139 1 M19870 1 X91625 1 L14848 1 U61274	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028598 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 Fip 1 U18660 1 U18661 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 L56139 1 M19870 1 X91625 1 L14848 1 U61274	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028598 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 FIp 1 U18660 1 U18661 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U581274	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028598 1 AF035648 1 U52175 1 D83030 1 U56434 1 U56434 1 U56697 2 L07950 1 FIp 1 U18660 1 U18661 1 U28759 1 L76084 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U56139 1 M19670 1 X91625 1 M19670	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028596 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 Fip 1 U18660 1 U18681 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U56139 1 M19670 1 X91625 1 L4848 1 U61274	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028598 1 AF035648 1 U52175 1 D83030 1 U58434 1 U58469 1 U06697 2 L07950 1 Fip 1 U18660 1 U18661 1 U28759 1 L76084 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 L56139 1 M19670 1 X91625 1 L14848 1 U61274	1 U52813 2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF017328 1 AF028598 1 AF028598 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 FID 1 U18680 1 U18881 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U561274

MHC class II DQ-alpha		M16995	+	T	T +	T +	T	1	T
associated with DRw6.	l - '		•		J. ' .	1 :	ŀ	'	
		1 1		1		1	1		
DQw1 protein		1 1		1	1	1	i	1	1 .
MHC class II DQ-beta	2	M17564		+	_	+	<del>                                     </del>	+	
associated with DR2,	1 -	1		1 7		1	٠.	T	
	[ .			ľ	1	1	ı	1	
DQw1 protein	1	1		i .	1	1	1	l	
MHC class II HAL-DQ-	<del>                                     </del>	M33842	<del></del>	<del></del>			_	├	
	1 . ' .	14103042			l.	ı	1	l ·	
LTR5 (DQ,w8) DNA	1	1		1		ì		1	
fragment, long terminal	1	1			ł	Ι.	l	1	i
repeat region		1			Ι.	l '	l	l	
10000 Togion	<del> </del>	<u> </u>		<u> </u>	<u> </u>	L	<u> </u>		
MHC class II hla-dr alpha-	] 1	J00195			I		I		
Ichain	·	1		1	1		1	1	1
(=J00197:M60334:K01117	Į.	1		1			l	1	1
		1 1			ł	1 .	1	٠.	1
1;J00194;M60333;X00274)	i	1 1		1	l	1	l		1
MHC class II HLA-DRB1	1	AF007883		<del></del>	<del>                                     </del>	├	_	_	
· ·		1		1	1	•			'
MHC class II HLA-DRW11	1	M21966							
beta-I chain (DRw11.3)	l '	1		1			1		
DOLD TOTAL (DITTIES)	<u> </u>	<u> </u>				L	l		i 1
MHC class II lymphocyte	. 1	M23907		Ι					
antigen (DPw4-beta-1)	Į.	1		1			ı	ľ	
MHC CLASS II	1					_	<u> </u>		
	, '	P33076		I		i	1.	٠.	·
TRANSACTIVATOR CIITA	1	j I		1	1	l	1 1	ı	
(non-exact 57%)	1	j l	٠	1	1	l	1	I	
MHC HLA-E2.1 (=X87679)	1	M32507	<u> </u>	-	<del></del>	<b> </b>	<b>—</b>	Ь	
		IVI323U/	•	Ī	l	ļ			
MHC HLA-E2.1 (alpha-2	1	M32507		<del> </del>	<del> </del>		Ь—	<u> </u>	
domain) (low metab)	1 1	17132307	٠.			l	1		l .
domain) (low match)				1	i :	١.		ı	Į ', l
Mi-2 autoantigen 240 kDa	1	U08379		<del>                                     </del>	$\overline{}$		_		
protein (non-exact 84%)		0000.0				ľ			
protein (non-exact 04 /6)		<u> </u>		L	1			,	•
microsomal stress 70	1	U04735							
protein ATPase core (stch)	ŀ	1		1	·	1		1	
microtubule-associated		<del>                                     </del>							
	1	U19727	+	+	+	+		+	
protein 4 (MAP4)		i							
microtubule-associated	1	X73882							
	. '	1 7/3002		j					•
protein 7 (MAP7)		1 1	•	1			·		
mineralocorticoid receptor	2	M16801		+	_	+		+	
(aldosterone receptor)	_	100001		1		Τ		•	
	ł	1		1					
(MLR)	i	) · •	•			1			
minichromosome	1	X62153		+	+	+		+	·
maintenance deficient (S.		NO2 100		T	Τ .	T :		_	
maintenance dencient (5.									
cerevisiae) 3 (MCM31)	1	1		1 1					
minichromosome	1	AB011144		<del>  </del>					
maintenance deficient (S.	'	\D011144		+	+	+		+	
inalitenance deficient (5.		1 1		l 1		i i			1
cerevisiae) 3-associated	l.	1 1		1 1					· }
protein (MCM3AP)		1		1 1			. 1		l l
	·	I							
minichromosome	2	X74795	+	+	+	+	+	+	
maintenance deficient (S.		l I							
cerevisiae) 5 (cell division		1 .1	•	1 1			- 1	- 1	. 1
		1		1 1			- 1	- 1	
cycle 46) (MCM5)		1 (		1 1			ı		1
mitochondiral cytochrome b	1	AF042517		_			_	_	
(CYTB)	· '	]		j [	ı i		Į	, 1	
		<del> </del>		السا		I		]	
mitochondrial 16S rRNA	. 11	Z70759			- 1			-	
mitochondrial ATP	<del></del> _	VEDERA		1				l	· · · · · · · · · · · · · · · · · · ·
	2	X59066		1 7		. 7	T	T	
synthase (F1-ATPase)		Ţ		i i	1	į	1		
alpha subunit		1		[ [		- 1	- 1	. 1	
mitochondrial ATP		VONDA	<u> </u>					l	
minocionana ATP	1	X69907		l T	7	. 1	7	_1	
synthase c subunit (P1					1	. i	ı	I	1
form)	r <del>-</del>				!		ı	Į	i
mitochondrial cytochrome b		AFRIAFAA				انب			
Immodictional cytochrome b	6	AF042508		1					
(CYTB)		1		∣ f	1	ł	ŀ	1	
mitochondrial cytochrome b	1	AB006202				$\rightarrow$			
himocronarial cytochionia pi	'	AB000202			ı			ı	
conditions to the second second		, 1			ı	J		1	1
small subunit of complex II				-					
small subunit of complex II	- 1	Pongos							
small subunit of complex II	1	P00395		l I	,	1	- 1	ľ	
small subunit of complex II mitochondnal CYTOCHROME C	1	P00395				j		ľ	
small subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I	1	P00395		-	·				
small subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I									
small subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I mitochondrial	1	P00395		-		_		_	
small subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I mitochondrial CYTOCHROME C				-		_			
Ismall subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE				-					
Ismail subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I mitochondrial CYTOCHROME C				-					
Ismail subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE II	1	P00403							
small subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE II mitochondrial cytochrome				-					
small subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE II mitochondrial cytochrome	1	P00403		-					
Ismall subunit of complex II mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE II	1	P00403							

mitochondrial cytochrome oxidase subunit II (COII)	5	U12691	,		Г							.,
(=U12692 Hsa4	i		•	l		ļ		ļ		٠.		
mitochondrion cytochrome				ļ ·				l				
oxidase subunit II)	1	X89763	<del> </del>	<u> </u>	<u> </u>	<u> </u>		<u> </u>				
attachment sequences		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					l					
(clone LAS34)				<u> </u>		<u> </u>	-					
mitochondrial DNA polymerase accessory	1	U94703		T+ "								
subunit precursor (MtPolB)		,					1	1				
nuclear gene encoding		·	*.	'				l				
mitochondrial protein,	7	X93334		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>				
complete genome		A93334					1					
mitochondrial genes for	8 <sub>., 1</sub>	V00710 -		1				,	<del></del>			
several tRNAs (Phe, Val, Leu) and 12S and 16S	*				·							
ribosomal RNAs.				l								
mitochondrial genes for	3	V00660				<del>                                     </del>						
tRNA (Phe) and 12S rRNA (fragment)			1		ŀ							
mitochondrial inner	1	AF106622	<del>                                     </del>	-	<u> </u>	<del> </del>	Ë	<del> </del>	<del></del>	<del></del>		
membrane preprotein				'			,				٠.	
translocase Tim17a mitochondrial isolate Afr7	4	AF042503	<del> </del>	<u> </u>	<u> </u>	<u> </u>				·		
cytochrome b(CYTB)		AI 042000										
mitochondrial loop	1	X89843	† — — —	<del>                                     </del>			_	-				
attachment sequence (clone LAS88)			İ	1					,			:
mitochondrial NADH	. 14	AF014893			├	<del> </del>	-					
dehydrogenase subunit 2 (ND2)	·.											
mitochondrial translational initiation factor 2 (MTIF2)	. 1	L34600		+	+	+		+				
mitochondrion cytochrome b	1	U09500										
mitogen inducible gene mig-2	1	Z24725		+	+	+		+				
mitogen inducible gene mig-2 (non-exact, 71%)	1	Z24725										
mitogen-activated protein kinase-activated protein	2	U43784		+	+	+		+				,
kinase 3 (MAPKAPK3)												
MLN51	2	X80199		+	+	+	+	+				
MLN64 (=D38255 CAB1)	1	X80198	+	+	+	+						
moesin (MSN)	14	M69 <b>066</b>	+	+	+	+		+				
monocytic leukaemia zinc finger protein (MOZ)	2	U47742		+	+	+		+			_	
MOP1 ()	2	U29165										
motor protein (Hs.78504)	2	D21094	. +	+	+	+		+				
mouse double minute 2,	1	U39736			+	+					-	
human homolog of; p53- binding protein (MDM2)	•				٠.							
M-phase phosphoprotein 6 (MPP-6)	1	X98263		+	+	+		+	•			:
M-phase phosphoprotein, mpp11	1	X98260							•			
MPS1	1	L20314					$\neg$					
Mr 110,000 antigen	2	D64154		+		+	+	+				
MRC OX-2, V-like region (=M17227)	1	X05324										
mu-adaptin-related protein- 2; mu subunit of AP-4 (MU- ARP2)	1	Y08387										
multifunctional polypeptide similar to SAICAR synthetase and AIR carboxylase (ADE2H1)	1	X53793	+	+	+	+		+			-	

WO 00/40749								10	.1/CA00/00005
murine leukemia viral (bmi- 1) oncogene homolog	1	L13689	-	+		+		*	
(BMI1) mutant (Daudi) beta2 -	44	X07621.				-		-	
microglobulin mutated in colorectal	1	M62397		+	+	$\dashv$		+	
cancers (MCC) myeloid cell leukemia	9	L08246	+	. +	+	+	+		
sequence 1 (BCL2-related)			* .						
myeloid cell nuclear differentiation antigeN (MNDA)	11	M81750	+					+	
myeloid differentiation	4	U70451		+	+	+		+	
(88) (MYD88) myeloid leukemia factor 2	- 3	U57342		+		+		+	
(MLF2)		U89867		+	+	+		+	
myeloid/lymphoid or mixed- lineage leukemia (trithorax (Drosophila) homolog); translocated to, 7 (MLLT7)	.8	008007				•			
MYH9 (cellular myosin heavy chain)	1	M81105							
myomesin (M-protein) 2 (165kD) (MYOM2)	- 1	X69089			٠				
myosin IÈ (MYO1E)	11	X98411		+		+			
myosin light chain kinase (MLCK)	. 1	U48959	+		+	+		+	
myosin phosphatase, target subunit 1 (MYPT1)	2	D87930		+	+	+		+	
myosin regulatory light chain (=U26162)	. 2	D50372							
myosin VIIa (low match 71)	1	U55208							
myosin, heavy polypeptide 9, non-muscle (MYH9)	3	M81105	+	+	+	+		+	
myosin, light polypeptide, regulatory, non-sarcomeric (20kD) (MLCB)	6	X54304	+	+	+	+	*	+	
myosin-l beta	1	X98507	+	+	+	+	<u> </u>	+	
myristoylated alanine-rich protein kinase C substrate (MARCKS, 80K-L) (MACS)	1	D10522		+	*				
myxovirus (influenza) resistance 1, homolog of murine (interferon-inducible protein p78) (MX1)	1	M30817	+	+	+	+		+	
myxovirus (influenza) resistance 2, homolog of murine (MX2)	3	M30818			+		· 		
N-acetylgalactosaminidase, alpha- (NAGA)	2	M62783		+	+		+	+	
N-acetylglucosamine receptor 1 (thyroid) (NAGR1)	1	L03532		+	+	+		+	
NACP/alpha-synuclein	2	U46896					Τ		
N-acylaminoacyl-peptide hydrolase (APEH)	1	D38441		+	+		*	+	
N-acylsphingosine amidohydrolase (acid ceramidase) (ASAH)	11	U47674	+	+	+	+		+	
NAD+-specific isocifrate dehydrogenase beta subunit precursor (encoding mitochondrial protein)	1	U49283		+	+	+	+	+	
NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 5 (13kD, B13) (NDUFA5)	1	U53468.1	+	+	+	1	+	+	

									•
NADH dehydrogenase (ubiquinone) 1 beta	1	AF047181		+	+	+	+	+	
subcomplex, 5 (16kD,		·							
SGDH) (NDUF85) NADH dehydrogenase	<del></del>	AFDEDG40		L.		<u> </u>			
(ubiquinone) Fe-S protein 2	1	AF050640	i	+	+	+	+	+	
(49kD) (NADH-coenzyme					٠.				
Q eductase) (NDUFS2) NADH dehydrogenase	1	M22538		-	+	. +	+	+	
(ubiquinone) flavoprotein 2	•	14122550				_	T .	_	•
(24kD) (NDÚFV2) NADH:ubiquinone	<u></u> -	X = 0 = 2 0 7 0		ــــــــــــــــــــــــــــــــــــــ	<u> </u>	<u> </u>			
dehydrogenase 51 kDa	2	AF053070	. +	+	+	+	+	+	
subunit (NDUFV1)									
NADH-CYTOCHROME B5 REDUCTASE (B5R)	1	P00387							
(50%aa)	}	. :	1	· ·		,		i. '	Ì
NADH-UBIQUINONE OXIDOREDUCTASE	1	P03886						<u> </u>	
CHAIN 1									
Nardilysin (N-arginine	. 2	U64898	+	+	+	+		+	
dibasic convertase) (NRD1)	•			1	'		<u> </u>		1
nascent-polypeptide-	5	X80909		+	+		+	+	
associated complex alpha polypeptide (NACA)		•		1.5	• •	1	1		
natural killer cell group 7	8	S69115		<del> </del>	<u> </u>	+	-	+	
sequence (NKG7)					·		L		
natural killer cell transcript 4 (NK4)	19	M32011	+						
natural killer-associated	1	U30274	+	<del>                                     </del>			$\vdash$	<del> </del>	blood only
transcript 3 (NKAT3)	1	AF022045	•				<u> </u>	<u> </u>	blood only
transcript 5 (NKAT5)		AF.UZZU43	•						blood only
natural killer-tumor recognition sequence	1	L04288	В		+		+	+	
(NKTR)						ľ.			
N-deacetylase/N-	2	AF042084	+	+		+		+	
sulfotransferase (heparan glucosaminyl) 2 (NDST2)									
Ndr protein kinase	3	Z35102		+	<del> </del>	-			
Nedd-4-like ubiquitin-	1	U96113						$\vdash$	
protein ligase WWP1 nel (chicken)-like 2	3	D83018		-	+			<u> </u>	
(NELL2)	. '				•				
N-ethylmaleimide-sensitive factor attachment protein,	1	U39412		+			+		
lalpha (NAPA)			,						
N-ethylmaleimide-sensitive	1	U78107		+	+	+		_	
factor attachment protein, gamma (NAPG)									1
neural precursor cell	3	X92544	+.	+	+	+		+	high in testis
expressed, developmentally down-	**		. •						_
regulated 5 (NEDD5)	<u>.</u>								
neural precursor cell expressed.	1	D23662	+	+	+	+	+	+	
developmentally down-								ŀ	
regulated 8 (NEDD8)		/ Inn							
neuregulin 1 (NRG1)	1	U02330		+		+	+		
neuroblastoma RAS viral (v-ras) oncogene homolog	4	AB020692	+	+	+ .	+	. ]	+	
(NRAS)								L	
Neuroblastoma RAS viral (v-ras) oncogene homolog	1	X68286	-				•		
(NRAS) (low match)		٠,	• 1				·	1	
Neurofibromin 2 (bilateral	1	S73853		+				+	
acoustic neuroma) (NF2)	2	U19251	+	+	+			+	ļ
inhibitory protein (NAIP)								Ľ	
neuronal cell adhesion molecule (NRCAM)	1	AB002341		+	+	+		+	
THE COLOR (TALLONIAL)			L				لببا	Ц	<u> </u>

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neuropathy target esterase (NTE)	1	AJ004832		+.	+	+		+	£
neuropeptide Y3 receptor, 5'UTR (low score)	1	D28433							
neurotrophic tyrosine kinase, receptor, type 1 (NTRK1)	14 .	X03541	+	+	+	+	+	+	
neutrophil cytosolic factor 4 (40kD)	2	U50720		·					
NG31	. 1	AF129756							
NGAL (=X83006)	1 .	X99133						,	
nibrin (NBS)	1.	AF051334							
NIK	1	AB014587		+:	+	+		+	
Ninjurin 1; nerve injury- induced protein-1	1	U72661		+	+	+		+	
nitrilase 1 (NIT1) (=AF069984)	1	AF069987							
NKG2-D (low match) (non- exact, 58%)	1	X54870						,	
Nmi	1	U32849							
N-myristoyltransferase 1 (NMT1)	1	AF043324		+	+	+	+	+	
No arches-like (zebrafish) zinc finger protein (NAR)	1:	U79569		+	+	+		+	
non-histone chromosome protein 2 (S. cerevisiae)- like 1 (NHP2L1)	1	D50420	+	+	+	+	+	+	
non-muscle (fibroblast) tropomyosin	1								
non-muscle alpha-actinin	1	U48734							
non-muscle myosin alkali light chain (Hs.77385)	3	M22918	+	+	+	. + .	+	+	High in fetal adrenal gland and BPH stroma
non-neuronal enolase (EC 4.2.1.11)	1	X16289							
non-receptor tyrosine phosphatase 1	1	M33689							·
normal keratinocyte substraction library mRNA, clone H22a	. 3	X53778	+	+	+	+	+	+	high in many libraries
notch group protein (N)	3	M99437	Ì						
novel protein	1	X99961							
novel T-cell activation protein	1	X94232		+	+	+		+	
N-ras protein NRU	1	A60196					<u> </u>		
N-sulfoglucosamine sulfohydrolase (sulfamidase) (SGSH)	1	U60111		+	-		1	+	
nsulin induced gene 1 (INSIG1)	1	U96876	+	+	+	+	+	+	
ntegrin, alpha 4 (antigen CD49D, alpha 4 subunit of VLA-4 receptor) (ITGA14)	3	L12002	+			+			
nterferon, gamma-inducible protein 16 (IFI16)	1	M63838	+	+	+	+		+	
nterleukin 1, beta (IL1RB)	1	M15330	<u> </u>	+	<del>                                     </del>	1	1	T	
nuclear antigen H731-like	2	U83908		+	+	+		+	
nuclear antigen Sp100 (SP100)	4	U36501	+			+	+	+	
Nuclear antigen Sp100 (SP100) (85%aa)	1	P23497				T	1	Γ	
Nuclear antigen Sp100 (SP100) (89%aa)	1	P23497				T			
nuclear autoantigenic sperm protein (histone- binding) (NASP)	1	M97856	+		+				

			•						
nuclear corepressor KAP-1 (KAP-1) (=U95040; X97548 TIF1beta zinc finger	1	U78773							
Nuclear domain 10 protein	4	U22897	+	+	+	+	+	+	
Nuclear factor (erythroid-	1	S74017	<del> </del>	+	+	+	+	+	
derived 2)-like 2 (NFE2L2) Nuclear factor of kappa	2	M58603	-	+	+	╄	+	+	
light polypeptide gene enhancer in B-cells 1 (p105) (NFKB1)	_	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				-	ľ.	`.	
nuclear factor of kappa	3	M69043	-	+	+	++	┢	+	· · · · · · · · · · · · · · · · · · ·
light polypeptide gene lenhancer in B-cells linhibitor, aloha (NFKBIA)									
nuclear factor related to kappa B binding protein (NFRKB)	1	U08191		+	+	+		+	
nuclear mitotic apparatus protein 1 (NUMA1)	3	Z11583	+	+	+	+	+	+	
nuclear receptor coactivator 2 (GRIP1)	1	X97674		Ī.			<u> </u>		
nuclear receptor coactivator 3 (AIB3)	2	AF010227	+	+	+			+	
nuclear receptor coactivator 4 (ELE1)	22	X77548		+	+	+	+	+	
nuclear receptor interacting protein 1 (NRIP1)	1	X84373		+		+		+	
nuclear respiratory factor 1 (NRF1)	1	U02683	В	+	+			-	
nuclear RNA helicase, DECD variant of DEAD box family (DDXL)	4	U90426	+	+	+	+		+	
nuclear transcription factor Y, alpha (NFYA)	1	X59711	В						
nuclear transcription factor, X-box binding 1 (NFX1)	3	U15306		+	+		+		
nuclear transport factor 2 (placental protein 15) (PP15)	1	X07315	+	+	+	+		+	
nucleobindin (=M96824)	1	U31336	-			<del>                                     </del>			
nucleobindin 1 (NUCB1)	2	M96824	+	+	+	+		+	
nucleolar phosphoprotein p130 (P130)	1	Z34289		+	+				
nucleolar protein (KKE/D repeat) (NOP56)	1	Y12065	+	+	+	+		+	
nucleolar protein (MSP58)	1	AF015308							·
nucleolar protein 1 (120kD) (NOL1)	. 1	M32110	+	+				·	
nucleolar protein p40	1	U86602	+	+	+	+		+	
nucleolin (NCL)	2	M60858	+	+	+	+		+	
nucleophosmin (nucleolar phosphoprotein B23, numatrin) (NPM1)	14	M28699	+	+	+	+		+	
nucleophosmin-retinoic acid receptor alpha fusion protein NPM-RAR long form		U41742			-				
nucleoporin (NUP358) (=D42063 RanBP2 (Ran- binding protein 2))	2	L41840							
nucleoporin 153kD (NUP153)	1	Z25535							
nucleoporin 98kD (NUP98)	1	U41815		$\vdash$		П			
nucleosome assembly protein	1	D28430							
nucleosome assembly protein 1-like 1 (NAP1L1)	1	M86667		+	+	+		+	
nucleosome assembly protein 1-like 4 (NAP1L4)	. 2	U77456	+	+	+	+		+	

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## PCT/CA00/00005

nucleosome assembly	1	D28430	T	T	т —	1	т-	1	<del></del>
protein, 5'UTR olfactory receptor (OR7-	L'.		<u> </u>		<u>                                     </u>		<u> </u>	<u>.</u>	
141)	1	U86281		1				1	
OLFACTORY RECEPTOR- ILIKE PROTEIN HGMP07E	1	P34982	1			_	<del>                                     </del>	Ť	
(OR17-4) (non-exact 65%)				'		ļ		١.	
oligodendrocyte myelin glycoprotein (OMG)	7	L05367		+	<del>                                     </del>	t	<u> </u>	1	
O-linked N-	1	U77413	+	+		+	+	+	
acetylglucosamine  (GlcNAc) transferase	•			'		`	<u>ا</u> ا	`	
(UDP-N-			} ·		j	Ι.			
acetylglucosamine:polypep tide-N-acetylglucosaminyl									
transferase) (OGT)			i ·				.		
oncofetal trophoblast glycoprotein 5T4 precursor	. 1	A53531							
(non-exact 55%)		1				'			
Oncogene TIM (TIM) (non- exact 84%)	1	U02082		İ					
ORF (Hs.77868)	1	M68864	+	+	+	+	+	+	
ORF1; MER37; putative	1	U49973		<del> </del>	<u> </u>	╁┈	-	-	
transposase similar to pogo element Length = 454	·.								
origin recognition complex,	2	U27459	<del></del>	İ		+		_	
subunit 2 (yeast homolog)- like (ORC2L)		<u> </u>							
origin recognition complex, subunit 4 (yeast homolog)-	1	AF022108							
llike (ORC4L) (low match)		:	1					ĺ	
ornithine aminotransferase (gyrate atrophy) (OAT)	2	M23204		+	+	+,			
ornithine decarboxylase (ODC)	1	M20372		-			_		
omithine decarboxylase	11	D78361	<del>                                     </del>					L.	Uigh in page 2
		0,0001	. +	+	+	+	+	+	iruun in Dancreas.
antizyme, ORF 1 and ORF		570001	*	+	+	+	+	*	High in pancreas, and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor	2	U07132	•	+	+	+	+	+	and activated T cells
antizyme, ORF 1 and ORF		U07132			+	+		+	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-	2		+	+			+		and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs. 100221) OS-9 precurosor osteonectin (=X82259 BM-40)	2 6 1	U07132 AB002806 D28381	+	+	+	+		+	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM- 40) ovel centrosomal protein RanBPM (RANBPM)	2	U07132 AB002806	+	+	+	+		+	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM- 40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast	2 6 1	U07132 AB002806 D28381	+	+	+	+		+	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1.	2 6 1	U07132 AB002806 D28381 AB008515	+	+	+	+		+	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) US-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c)	2 6 1 1	U07132 AB002806 D28381 AB008515 L34839 U09550	+	+	+ +	+ + +	+	+ +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL)	2 6 1 1 1	U07132  AB002806  D28381  AB008515  L34839  U09550  X80695	+	+	+ +	+ +	+	+	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH)	2 6 1 1	U07132 AB002806 D28381 AB008515 L34839 U09550	+	+	+ +	+ + +	+	+ +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein	2 6 1 1 1	U07132  AB002806  D28381  AB008515  L34839  U09550  X80695	+	+	+ + + +	+ + +	+ +	+ +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs. 100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP)	2 6 1 1 1 1 1 1 1 4	U07132 AB002806 D28381 AB008515 L34839 U09550 X80695 D10523	+	+ + + + + + + + + + + + + + + + + + + +	+ + + +	+ + +	+ + + +	+ +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF (non-exact zinc finger)	2 6 1 1 1 1 1 4	U07132  AB002806 D28381  AB008515 L34839 U09550 X80695 D10523 M86917	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + +	+ + +	+ + + +	+ + + +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20- related) (PAK1)	2 6 1 1 1 1 4	U07132  AB002806 D28381  AB008515 L34839 U09550 X80695 D10523  M86917 X70394	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + +	+ + +	+ + + +	+ + + +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20- related) (PAK1) P35-related protein (= S80990 ficolin)	2 6 1 1 1 1 4	U07132  AB002806 D28381  AB008515 L34839 U09550 X80695 D10523  M86917 X70394 X70394	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + +	+ + + + +	+ + + +	+ + + +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20- related) (PAK1) P35-related protein (= S80990 ficolin)	2 6 1 1 1 1 4 1 1 2	U07132  AB002806  D28381  AB008515  L34839  U09550  X80695  D10523  M86917  X70394  X70394  X70394  U51120  D63392  U93569	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + +	+ + + + +	+ + + +	+ + + +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20- related) (PAK1) P35-related protein (= S80990 ficolin) p40 p40phox (=U50720)	2 6 1 1 1 1 4 1 1 2	U07132 AB002806 D28381 AB008515 L34839 U09550 X80695 D10523 M86917 X70394 X70394 U51120 D63392 U93569 X77094	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + +	+ + + + +	+ + + +	+ + +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs. 100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20- related) (PAK1) P35-related protein (= S80990 ficolin) p40 p40phox (=U50720) P47 LBC oncogene	2 6 1 1 1 1 4 1 1 2	U07132  AB002806 D28381  AB008515 L34839 U09550 X80695 D10523  M86917 X70394 X70394 U51120 D63392 U93569 X77094 U03634	+	+ + + + + + + + + + + + + + + + + + + +	+ + + +	+ + + + + +	+ + + +	+ + +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20- related) (PAK1) P35-related protein (= S80990 ficolin) p40 p40phox (=U50720) P47 LBC oncogene p53-induced protein (PIG11)	2 6 1 1 1 1 4 1 1 2	U07132 AB002806 D28381 AB008515 L34839 U09550 X80695 D10523 M86917 X70394 X70394 U51120 D63392 U93569 X77094	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + +	+ + + + +	+ + + +	+ + +	and activated T cells
antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20- related) (PAK1) P35-related protein (= S80990 ficolin) p40 p40phox (=U50720) P47 LBC oncogene p53-induced protein	2 6 1 1 1 1 4 1 1 2	U07132  AB002806 D28381  AB008515 L34839 U09550 X80695 D10523  M86917 X70394 X70394 U51120 D63392 U93569 X77094 U03634	+	+ + + + + + + + + + + + + + + + + + + +	+ + + +	+ + + + + +	+ + + +	+ + +	and activated T cells

p62 nucleoporin	<del></del>	·							•
- I'	1	X58521					Т		100
p63 mRNA for transmembrane protein	1	X69910	+	+	+	+	T	+	
PAC clone DJ0701016 from 7q33-q36 (non-exact 54%)	1.	Q07108				-		1.	
palmitoyl-protein thioesterase (ceroid-	10	U44772		+	+	-+	-	+	
lipofuscinosis, neuronal 1, infantile; Haltia-Santavuori disease) (PPT)		,							
papillary renal cell carcinoma (translocation- associated) (PRCC)	1	X99720	+	+	+.	+	+	+	
PAR protein	<del>                                     </del>	AF115850		++-		╁	1	↓	
partial EST (Clorle c-1gh04)		Z43627	-	<del></del>	<u> </u>	<b>T</b>	<u> </u>	4	<u> </u>
PAX3/forkhead	1	U02368		-	ļ	┞—	_	┞	
transcription factor gene fusion									
paxillin (PXN)	4	D86862		+	+	+	t	+	
PBK1 protein	2	AJ007398	+	+	+	+	$\vdash$	+	<del>                                     </del>
PBS-EST (nz92e01.s1 NCI_CGAP_GCB1 clone	. 1	AA732534		$\top$	<del>                                     </del>		$\vdash$	<del>                                     </del>	† · · · · · · · · · · · · · · · · ·
IMAGE:1302936) (low score)									·
PDZ domain protein (Drosophila inaD-like) (INALD)	-1	AJ224747	+			+		+	
PEBP2aC Runt domain encoding gene (=Z35728)	1	Z38108		1		_	-	-	
peptidase D (PEPD)	. 1	J04605		+	<del> </del>	<del>                                     </del>	-	<del>├</del> ∸	<u> </u>
peptidylprolyl isomerase A (cyclophilin A) (PPIA)	- 3	Y00052		+	+	+	+	+	high in many libraries
peptidylprolyl isomerase D (cyclophilin D) (PPID)	2	L11667	Т	+	+		+	+	
peptidylprolyl isomerase E (cyclophilin E) (PPIE)	1	AF042386		+	+		+	+	
PERB11.1 (=U56942 MHC class I chain-related protein A)	1	U69630			•				
perforin 1 (preforming protein) (PRF1)	14	M28393	<del></del>	1.				-	
peroxisomal acyl-CoA thioesterase (PTE1)	2	X86032							
Peroxisomal acyl- coenzyme A oxidase		X71440		+	+	+	+	+	
peroxisomal farnesylated protein (PXF) phorbol-12-myristate-13-		X75535		+	+	+	+	+	
acetate-induced protein (PMAIP1)		D90070	B, W						
phosphate carrier (mitochondrial gene?)	1	X77337							
Phosphate camer, mitochondrial (PHC) phosphate	3	X60036	+	+	+	+		+	
cytidylyltransferase 1, choline, alpha isoform (PCYT1A)	1	L28957			+		+		
PHOSPHATIDATE CYTIDYLYLTRANSFERAS E (CDP-DIGLYCERIDE)	1	Q92903							
phosphatidylinositol 3- kinase delta catalytic subunit	2	U57843						-	
phosphatidylinositol 4- kinase, catalytic, beta polypeptide (PIK4CB)	3	AB005910	+	+	+	+		+	
phosphatidylinositol glycan, class H (PIGH)	1	L19783		+	+	+	+	+	

								-	C1. C/100/00005
phosphatidylinositol transfer protein (PI-TPbeta)	2	D30037			Τ.	Τ	Ť	Τ	T
phosphatidylinositol	2	X98654	В. Т	+	-	+	+-	+-	
transfer protein,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	lymphoma	'		1		1	j '
membrane-associated	٠.		7	1	1		· [		
(PITPNM)			1		ł	1			
phosphatidylinositol	1	X98654		1.	1	1			
transfer protein, membrane-associated	i		İ		l			1	
(PITPNM) (non-exact 64%)		· ·	1	<b>]</b> .	Ι.	.	1	1	,
phosphatidylinositol-4-	1	U14957		ļ	+	+-	++	↓	<u> </u>
phosphate 5-kinase, type	· ·	014337	ļ ·	İ	-		+	l	
il, alpha (PIP5K2A)	10.00				1		1 .	١.	
phosphatidylinositol-4-	1	U85245	† <del></del>	+.	+.	+	1-	+	
phosphate 5-kinase, type					ŀ		1	İ	
II, beta (PIP5K2B)		140000	<del></del>				<u> </u>		
(PDE7A)	· '	L12052	B, W	+	+		<b>+</b>	1	
phosphodiesterase IB	1	U56976	<del>                                     </del>	L	10-	1	╄	-	<u> </u>
(PDES1B)	l .'	030370	1	0	NLY-		1		•
phosphoglucomutase 1	2	M83088		+	T #	+	+	+	
(PGM1)				`	`	1	'	1	
phosphogluconate	1	U30255	T	<b></b>	+	+	t	<del> </del>	
dehydrogenase (PGD)						<u>L</u>	1		
phosphoglycerate kinase 1 (PGK1)	12	V00572				T			
phosphoglycerate mutase	3	104472	<del> </del>			<del>↓</del>	1		
1 (brain) (PGAM1)	3.	J04173	+	+ -	+	+	+	+	_ ·
phosphoglycerate mutase	7-	M55673	<del> </del>	+	+	╄	┼	+	· · · · · · · · · · · · · · · · · · ·
2 (muscle) (PGAM2)				•		i .	1	1	•
phosphoinositide-3-kinase,	1	Z29090	<del>                                     </del>	+	+	+	<del> </del>	┼	
catalytic, alpha polypeptide (PIK3CA)		1		l		·	1	١.	
				L		<u> </u>		ļ	<u> </u>
phosphoinositide-3-kinase, catalytic, delta polypeptide	4	U86453		+	+	+		+	
(PIK3CD)				•		1	1		
phosphoinositide-3-kinase,	1	X83368	<del> </del>		· -	╄	├	├	
catalytic, gamma			1			'			ľ
polypeptide (PIK3CG)						1.			, ·
phospholipase C	1	X14034	1			<del>                                     </del>			<del></del>
phospholipase C, delta 1	2	U09117	<del>                                     </del>	+	+	+	<del>                                     </del>	+	<del></del>
(PLCD1)				, i	· .				. * .
phospholipase C, gamma 1	1	M34667	+	+	+	+		+	
(formerly subtype 148) (PLCG1)					İ				, '.
phospholipid scramblase	1	AF008445			ļ	<u> </u>	<u> </u>		·
					l	<u>l</u>	l		·
phosphoribosyl pyrophosphate synthetase-	1	D61391		+	+			+	
associated protein 1		1				į .		i	
(PRPSAP1)				•		ĺ	·		
phosphoribosylglycinamide	3	X54199		+	+	+	+	+	
Iformyltransferase.					•	l .			
phosphoribosylglycinamide									, .
synthetase, phosphoribosylaminoimida		1	1						
zole synthetase (GART)		1	1			l			·
phosphorylase kinase	3	D38616		<del>-</del>	+	+	. +	+	
alpha 2 (liver), glycogen	3	550010		Τ	*	▼	*	*	
storage disease IX			1 1	-			.		
(PHKA2)		<u></u>	<u>[                                      </u>	- 1					
phosphorylase, glycogen;	1	U47025	+	+	+			+	-
brain (PYGB)		11/48	<u> </u>		•		L		, , , , , , , , , , , , , , , , , , ,
phosphorylase, glycogen; brain (PYGB) (low match,	, 1	U47025	1						
non-exact, 75%)	•								•
phosphorylase, glycogen;	1	Y15233	<del>  </del>	+	+	+	$\vdash \vdash$	1	
lliver (Hers disease.	•	1 10200	]	7	₹.	🔭		+	
lycogen storage disease	•								·
type VI) (PYGL)		·	1						·
phosphorylation regulatory	2								
protein HP-10	· .		<u> </u>						·
phosphotidylinositol transfer protein (PITPN)	1	D30036	+	+	+	+		+	
manaier protein (PTPN)		<u> </u>	L l	1				۱ ا	

pigment epithelium-derived	1	U29953	<del>`</del>						
factor (PEDF)	L		+	*	*	*	*	*	
pim-1 oncogene (PIM1)	1	M24779	+	+	+			+	
pinin, desmosome associated protein (PNN)	1.	U77718		В	, mor	ocyt	e, T	lym	phoma
placenta (Diff33)	5	U49188	<del></del>	T +	+	+	$\overline{}$	+	T
placenta (Diff33) (non- exact, 69%)	1	U49188		1			$\vdash$	$\vdash$	
placenta (Diff48)	18	U49187	+	<del></del>	-	<del> </del>	╄	╄-	
placenta (Diff48) (low	1	U49187	<del>  · · · · · · · · · · · · · · · · · · ·</del>	+	-	·	╫┈	╁╌	<del>                                     </del>
match) placenta(Diff48) (low	1 .	U49187		<del></del>		_	<u> </u>	<u> </u>	
match) plasminogen activator.	l							1.	•
urokinase receptor	1	X74039		+		+		+	
(PLAUR) platelet factor 4 (PF4)				, ,					
platelet/endothelial cell	8	M25897 M37780			+	L.		, <del>+</del>	
adhesion molecule (CD31 ntigen) (PECAM1)	_	M37780		+	+	+	+	+	
platelet-activating factor acetylhydrolase 2 (40kD) (PAFAH2)	4	U89386		+	+	+			
platelet-activating factor acetylhydrolase, isoform lb,	1	U72342	+	+	+	+	+.	+	
alpha subunit (45kD)  (PAFAH1B1)									
platelet-activating factor receptor (PTAFR)	1 1	D10202		+				+	
pleckstrin (PLEK)	10	X07743		+	+	+		+	
pleckstrin (PLEK) (low match)	1	X07743		1					
pleckstrin homology, Sec7	4	M85169	+	++	_	+	├	+	
and coiled/coil domains 1(cytohesin 1) (PSCD1)									
pleckstrin homology, Sec7 and coiled/coil domains,	4	L06633	+			+			
binding protein (PSCDBP)									
pM5 protein PMP69	1	X57398	+	+	+	+		+	
poly (ADP-ribose)	1	Y14322 X56140							
polymerase (NAĎ (+) ADP- ribosyltransferase) (=X16674)		A30140							
poly(A) polymerase (PAP)	1	X76770	+	1 + 1	+	+		+	
poly(A)-binding protein-like 1 (PABPL1)	19	Y00345	+	+	+	+	+	+	
poly(rC)-binding protein 1 (PCBP1) polyadenylate binding	3	X78137	+	+	+	+	+	+	· · · · · · · · · · · · · · · · · · ·
protein	1	U75686							
polycystic kidney disease 1 (autosomal dominant) (PKD1)	5	U24498							
polymerase (DNA directed), beta (POLB)	1	D29013		+	_		+	+	
polymerase (DNA directed), gamma (POLG)	6	D84103				寸	$\dashv$	$\neg$	
polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A)	1	X63564	+	1	+	+	+	+	
polymyositis/scleroderma autoantigen 2 (100kD) (PMSCL2)	1	L01457	+	+	+	+	+	+	_
polypyrimidine tract binding protein (heterogeneous nuclear ribonucleoprotein I) (PTB)		X65372	<b>.</b>	+	+	+	+	+	·

								`	
positive regulator of programmed cell death ICH-1L (Ich-1)	3	U13021		· .	+				.6
postmeiotic segregation increased 2-like 12 (PMS2L12)	1	M16514	+	+	+	+		+	
postmeiotic segregation increased 2-like 8 (PMS2L8)	1	U38964	+	+	+	+		+	
potassium inwardly- rectifying channel, subfamily J, member 15	1	D87291			· ·	+		+	
(KCNJ15) potassium voltage-gated channel, KQT-like	1	AF051426	1	+	+	+		+	
subfamily, member 1 (KCNQ1) POU domain, class 2,	1: ; i	Z49194				-			
associating factor 1 (POU2AF1)									
POU domain, class 2, transcription factor 1 (POU2F1)	2	X13403		+		+	*		
PPAR binding protein (PPARBP) PPAR gamma2	1	Y13467 D83233	+	+	+	+	<u> </u>	+	
			<b></b>	<b></b>	<u> </u>	<u> </u>	<u> </u>	<b></b>	
pre-B-cell colony- enhancing factor (PBEF) prefoldin 1 (PFDN1)	8	U02020 Y17392	+		+	+	+	+	
prefoldin 5 (PRFLD5)	3	D89667	В	+	+	⊢ ·	+	<u> </u>	
prefoldin subunit 3 (=U96759 von Hippel-	1	Y.17394	В	7	-	-	_	-	
Lindau binding protein (VBP-1))						. :			
pregnancy-associated plasma protein A (PAPPA)	1	U28727	· · ·	+		+			high in placenta
pre-mRNA splicing factor SF3a (60kD), similar to S. cerevisiae PRP9 (spliceosome-associated	1 ·.	U08815	*	*		+		+	
protein 61) (SF3A60)	1	U08815					Ŀ	_	
SF3a (60kD), similar to S. cerevisiae PRP9 (spliceosome-associated protein 61) (SF3A60) (low score)									
pre-mRNA splicing factor SRp20, 5'UTR	2	D28423					·		
preprotein translocase (TIM17)	3	X97544	+	+	+			+	
prion protein	· '	X82545		· _					
prion protein (p27-30) (Creutzfeld-Jakob disease, Gerstmann-Strausier- Scheinker syndrome, fatal	1	M13899		*	+	+		+	
familial insomnia) (PRNP) pristanoyl-CoA oxidase (low match)	1	Y11411		-	-			_	
pristanoyi-CoA oxidase (low score)	1	Y11411	·						
procollagen-lysine, 2- oxoglutarate 5- dioxygenase (lysine hydroxylase, Ehlers-Danlos syndrome type VI) (PLOD)	1	M98252		+	+	*	· .	+	
procollagen-proline, 2- oxoglutarate 4- dioxygenase (proline 4- hydroxylase), alpha		M24486	+	+	+	+	+	+	
polypeptide 1 (P4HA1)			L		L	<u>L</u>	<u> </u>		<u> </u>

procollagen-proline, 2-	4	X05130	+	+	+	+	+	+	. 6
oxoglutarate 4- dioxygenase (proline 4-							l	1	
hydroxylase), beta				<b>.</b>	.	1	i .	l	·
polypeptide (protein	-	1	•		•				
disulfide isomerase; thyroid				ŀ			٠.		
hormone binding protein p55) (P4HB)	•		•			ŀ	1		
profilin 1 (PFN1)	1	J03191	+	.+	+	+	+	+	
·					T .			T	
progesterone receptor- associated p48 protein	2	: U28918		+				· .	
(P48)									
prohibitin (PHB)	1	S85655		.+	+	.+	+	+	
proliferating cell nuclear	3	J04718	+	+	+	+	-	+	
antigen (PČNA)		ļ							
premeration-associated	1177	219184	+	Ŧ"	14	+	. 4.1	+	
gene A (natural iller- enhancing factor A)									
(PAGA)							ŀ	ľ	
proline-rich protein BstNI	1	S62936	l				<del></del>	-	· · · · · · · · · · · · · · · · · · ·
subfamily 2 (PRB2) (non-				'			l		
exact, 43%aa)									
proline-serine-threonine phosphatase interacting	. 1	U94778				l.			
protein 1 (PSTPIP1)		1							
prolyl endopeptidase	2	X74496		+		+	—	+	
(PREP)				L '			<u>[</u>	L	
prolylcarboxypeptidase	5	L13977		+	+	+	+	+	
(angiotensinase C) (PRCP)	1	M80185	+			+		ļ.,	
(PML)	,	IVIOU 100	T	+	+	+		+	*
properdin P factor,	4	X57748	+					_	
complement (PFC)		·							
pro-platelet basic protein (includes platelet basic	1	M54995			+	+		+	
protein, beta-					·				
thromboglobulin,			( '.						
connective									
tissue-activating peptide III,			·					ŀ	
neutrophil-activating peptide-2) (PPBP)				'				ŀ	
pro-platelet basic protein	<del>- 7 :</del>	M54995	+		+		+		
(includes platelet basic	•	11.0 1000	·		` <u>]</u>		'		
protein, beta-									
thromboglobulin, connective tissue-									·
activating peptide III.									
neutrophil-activating									
peptide-2) (PPBP)						-			
proprotein convertase	. 4	U40623	1.						
subtilisin/kexin type 7 (PCSK7)									
prosaposin (variant	89	D00422	+	+	+	<del>-</del>	+	+	
Gaucher disease and			'			.			. !
variant metachromatic	•								
leukodystrophy) (PSAP) prostaglandin-		TIESDAE						لبا	
endoperoxide synthase 1	1 ,	U63846	В	+			+	+	
(prostaglandin G/H						- 1			ļ. <b>1</b>
synthase and					l		· [		
cyclooxygenase) (PTGS1)					<u> </u>		1		
prostaglandin- endoperoxide synthase 2	2	L15326							
(prostaglandin G/H						- 1	-		
synthase and	,			:			1		
cyclooxygenase) (PTGS2)		,					- 1		
prostaglandin-	1	D64068							
endoperoxide synthase-1 (=L08404; U84208) (all			·		1	l			.:
promoters)			I						ļ
prostate carcinoma fumor	2	L78132	<del></del>						
antigen (pcta-1)					I		1		

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professe inhibitor 1 (anti- elastase), alpha-1-	17	K02212		+	+	+	+	. +	high in many libraries
antitrypsin (PI) protease inhibitor 2 (anti-	1	M93056				+.		+	
elastase), monocyte/neutrophil (ELANH2) (low match)									
proteasome (prosome, macropain) 26S subunit,	3	L02426	В	+	+			+	
ATPase, 1 (PSMC1) proteasome (prosome,	1	M34079	+	+	+	+		+	
macropain) 26S subunit, ATPase, 3 (PSMC3) proteasome (prosome,	2	AF020736							
macropain) 26S subunit, ATPase, 4 (PSMC4)									
proteasome (prosome, macropain) 26S subunit, ATPase, 5 (PSMC5)	5	L38810	+	+	+	+	+	+	
proteasome (prosome, macropain) 26S subunit, ATPase, 6 (PMSC6)	2	D78275	+	+	+	+	,	+	
proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11)	1	AF001212		+			+		
proteasome (prosome, macropain) 26S subunit, non-ATPase, 2 (PSMD2)	2	D78151		+	-+			+	
proteasome (prosome, macropain) 26S subunit, non-ATPase, 5 (PSMD5)	1	S79862	Т	+	+		+		
proteasome (prosome, macropain) 26S subunit,	1	D50063		+	+	+		+	high in many libraries
non-ATPase, 7 (Mov34 homolog) (PMSD7) proteasome (prosome,		AB003103		+.	+	+		+	
macropain) 26S subunit, on-ATPase, 12 (PMSD12)	· · · · · · · · · · · · · · · · · · ·	L07633		-	ļ.	+	_	·	
proteasome (prosome, macropain) activator subunit 1 (PA28 alpha) (PSME1)	<b>ن</b>	207000							
proteasome (prosome, macropain) subunit, alpha type, 3 (PSMA3)	2	D00762		+	+	+		+	
proteasome (prosome, macropain) subunit, alpha type, 5 (PSMA5)	3	X61970	+	+	+	+		+	
proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7)	3	AF054185		+	+	+	+	+	
proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7) (low match)	1	AF022815							
proteasome (prosome, macropain) subunit, beta type, 1 (PSMB1)	1	D00761	+	+	1	+	+	+	
proteasome (prosome, macropain) subunit, beta type, 10 (PSMB10)	1	X71874	+	+	-	+	*	+	
proteasome (prosome, macropain) subunit, beta type, 6 (PMSB6)	1	D29012		+	+	+		•	
proteasome (prosome, macropain) subunit, beta type, 8 (large		U17497	+	+	+	1		*	
multifunctional protease 7) (PSMB8) proteasome (prosome,	3	Z14977	+	+	+	++	+	+	
macropain) subunit, beta type, 9 (large multifunctional protease 2)					·				
(PSMB9)	<del></del>	<del></del>	70						

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proteasome (prosome, macropain) subunit, beta ype, 7 (PSMB7) protective protein for beta-	1	D38048	+	+	+	+	+	+	
					·				
galactosidase (galactosialidosis) (PPGB)	3	M22960	+	+	+	+	+	+	
protein A alternatively spliced form 2 (A-2)	1	U47925		. +	,		-		· · · · · · · · · · · · · · · · · · ·
protein activator of the interferon-induced protein kinase (PACT)	<del></del> 1	AF072860		+	+ .	+		+	high in testis
protein disulfide isomerase- related protein (P5)	2	D49489	+	+	+	+	+	+,	
protein geranylgeranyltransferase type I, beta subunit (PGGT1B)	1	L25441	+	+	+				
protein homologous to	20	M24194	+	<del>                                     </del>	+	+	+	+	high in many libraries
chicken B complex protein, guanine nucleotide binding (H12.3)		10124104							
protein kinase A anchoring protein	1	AF037439		+					
protein kinase C substrate 80K-H (PRKCSH)	2	U50317	+	+	+	+		+	
protein kinase C, beta 1 (PRKCB1)	6	X06318	+	+	+	+	• •	+	
protein kinase C, delta (PRKCD)	1	D10495	+	+	+	+		+	:
protein kinase C, eta (PRKCH)	1	M55284						+	
protein kinase C, mu (PRKCM) (non-exact 78%)	1	X75756							
Protein kinase C-like 1 (PRKCL1)	2	D26181	+	+	+	+		+	
protein kinase, AMP- activated, gamma 1 non- catalytic subunit (PRKAG1)	1	U42412	B, T lymphoma	+	+				
protein kinase, cAMP- dependent, regulatory, type I, alpha (tissue specific extinguisher 1) (PRKAR1A)	4	M18468		+	+	+	+	+	
protein kinase, DNA- activated, catalytic polypeptide (PRKDC)	1	U47077		+	+		+	+	
protein kinase, mitogen- activated 1 (MAP kinase 1; p40, p41) (PRKM1)	1	Z11695	8 .	+			+		
protein kinase, mitogen- activated 6 (extracellular signal-regulated kinase, p97) (PRKM6)	1	L77964		+		+	+	+	
protein kinase, mitogen- activated, kinase 3 (MAP kinase kinase 3) (PRKMK3)	1 .	U66839	+	+	+	+	+		
protein phosphatase 1, catalytic subunit, alpha isoform (PPP1CA)	5	M63960	+	+	+	+	+	+	
protein phosphatase 1, regulatory subunit 10 (PPPR10)	3	Y13247		+	+	+		+	
protein phosphatase 1, regulatory subunit 7 (PPP1R7)	2	Z50749	+	+	+	+	+	+	
protein phosphatase 2 (formerly 2A), catalytic subunit, beta isoform (PPP2CB)	1	X12656	+	+	+	+	+	+	
protein phosphatase 2 (formerly 2A), regulatory subunit B" (PR 72), alpha isoform and (PR 130), beta isoform (PPP2R3)	1	L07590			+	+		+	

								. – -	,
protein phosphatase 2, regulatory subunit B (B56), alpha isoform (PPP2R5A)	2	L42373	*	+	+	+		+	7
protein phosphatase 2, regulatory subunit B (B56), delta isoform (PPP2R5D)	3	D78 <b>360</b>		+	+	+		+	
protein phosphatase 2, regulatory subunit B (B56), gamma isoform (PPP2R5C)		D26445	+	+	+	+		+	
protein phosphalase 2A regulatory subunit alpha- isotype (alpha-PR65)	5	J02902	+	+	+	+		+	
protein phosphatase 4 (formerly X), catalytic subunit (PPP4C)	2	AF097996	+	+	+	+		+	
protein tyrosine kinase 2 beta (PTK2B)	4	L49207		+		+		+	
protein tyrosine phosphatase epsilon	1	X54134							
protein tyrosine phosphatase type IVA, member 2 (PTP4A2)	2	L48723	+	+	+	+	÷	+	
protein tyrosine phosphatase, non-receptor type 1 (PTPN1)	1	M31724	+	+	+	+		·	
protein tyrosine phosphatase, non-receptor type 12 (PTPN12)	1	M93425		+	+	+		+	high in testis
protein tyrosine phosphatase, non-receptor type 12 (PTPN12) (non- exact, 70%)	1	M93425							
protein tyrosine phosphatase, non-receptor type 2 (PTPN2)	2	M25393		+	+	•		+	
protein tyrosine phosphatase, non-receptor type 4 (megakaryocyte) (PTPN4)	1	M68941			+	+		+	
protein tyrosine phosphatase, non-receptor type 6 (PTPN6)	7	M74903	+	+	+	+		+	
protein tyrosine phosphatase, non-receptor type 7 (PTPN7)	1	D11327	+			+		+	
protein tyrosine phosphatase, receptor type, alpha polypeptide (PTPRA)	1	M34668	+	+	+	+		+	
protein tyrosine phosphatase, receptor type, c polypeptide (PTPRC)	44	Y00638	+	+		+		+	
protein tyrosine phosphatase, receptor type, M (PTPRM)	1.	X58288		+	+	+		+	
protein tyrosine phosphatase, receptor type, N polypeptide 2 (PTPRN2)	2	U81561		+		+		+	
protein with polyglutamine repeat (ERPROT213-21)	1	U94836	+	+	+	+		+	
protein-kinase, interferon- inducible double stranded RNA dependent inhibitor (PRKRI)	1	U28424	·	+	+	+	*	+	
protein-L-isoaspartate (D- aspartate) O- methyltransferase (PCMT1)	4	D13892	÷	+	+				
proteoglycan 1, secretory granule (PRG1)	7	J03223		+		+		+	
prothymosin, alpha (gene sequence 28) (PTMA)	12	M14483	+	+	+	+	+	+	

prp28, U5 snRNP 100 kd protein (U5-100K)	7	AF026402	+	+	+	+		+	
PRP4/STK/WD splicing factor (HPRP4P)	1	AF001687		+	+-	+		+	<del></del>
PTK7 protein tyrosine kinase 7 (PTK7)	1	U40271		+	+	+	-	+	
punnergic receptor P2X, ligand-gated ion channel, 4 (P2RX4)	3	AF000234		. +	+	+		+	
purinergic receptor P2X, ligand-gated ion channel, 7 (P2RX7)	1	Y12851	+	-		-			macrophage only
puromycin-sensitive aminopeptidase (PSA)	1	Y07701	`	+	+			+	
putative ATP(GTP)-binding	2	AJ010842		+		-		+	
putative brain nuclearly- targeted protein	1	AB018308	+	+	+	+		+	
(KIAA0765) putative chemokine	1	D10923	+	ļ		·	ļ. —	-	
receptor; GTP-binding protein (HM74)									
putative dienoyl-CoA isomerase (ECH1)	1	AF030249		·					
putative G-binding protein	1	AF065393							
Putative human HLA class II associated protein I (PHAP1)	.1	U73477	8 :	+			+		
Putative L-type neutral amino acid transporter (KIAA0436)	1.	AB007896							
putative mitochondrial space protein 32.1	1	AF050198				_		-	
PUTATIVE MUCIN CORE PROTEIN PRECURSOR	1	Q04900							
24 (MULTI- GLYCOSYLATED CORE PROTEIN 24) (MGC-24)		· .						,	
(MUC-24) putative nucleic acid	2	X76302	+	+	+	+		+	
binding protein putative outer	<u> </u>	U58970		+	+	+		+	
mitochondrial membrane 34 kDa translocase Htom34		333.3	·	·		·			
putative p150 (non-exact 88%)	1	U93568							
putative translation initiation factor (SUI1)	<del></del>	L26247	+	+	+	+	+	+	High in moderately differentiated colon adenocarcinoma
putative tumor suppressor protein (123F2)	1	AF061836		+,	+	+	-	+	adenocarchoma
pyrroline 5-carboxylate reductase	1	M77836	+	+	+	+		+	
pyruvate dehydrogenase (lipoamide) alpha 1 (PDHA1)	1	D90084		+	+	+	+	+	
pyruvate dehydrogenase (lipoamide) beta (PDHB)	2	J03576	+	+	+	+		+	
Pyruvate dehydrogenase complex, lipoyl-containing component X; E3-binding	3	Y13145	·	+	+		<u> </u>		
protein (PDX1) pyruvate kinase, muscle (PKM2)	11 .	M23725					+		
RAB, member of RAS oncogene family-like	1	U18420		+	+	+		+	
(RABL) RAB1, member RAS	3	M28209		+	+	+		+	
oncogene family (RAB1) RAB11A, member RAS	2	X56740		+	+	+			high in spleen
oncogene family (RAB11A)	<b>-</b>								Ingil iii spiecii

RAB11B, member RAS oncogene family (Rab11B)	1	D45418		T +				+	**
RAB27A, member RAS	3	U386 <b>54</b>		1		+	<del>                                     </del>	+	
oncogene family (RAB27A) RAB5B, member RAS	1	X54871.		+	+	+	├	+	
oncogene family (RAB5B) RAB6, member RAS			·			Ĺ			
oncogene family (RAB6)	1	M28212		+				+	
RAB7, member RAS oncogene family (RAB7)	1	X93499	+	+	+	+		+	
RAB7, member RAS oncogene family-like 1 (RAB7L1)	2	D84488		+	+	+		+	
RAB9, member RAS oncogene family (RAB9)	1	U44103						<del>                                     </del>	
RAD50 (S. cerevisiae) homolog (RAD50)	íŽ	U63139	<del> </del>	+	+	+	-	-	
RAD51 (S. cerevisiae)	1	AF029669	<del>                                      </del>	+	+	+	-	+	
homolog C (RAD51C) Radin blood group (RD)	. 2	L03411	<del> </del>	+	+	+		+	
RAE1 (RNA export 1,	3	U84720	+	+	+	+	-	+	
S.pombe) homolog (RAE1) ralA-binding protein	2	L42542	+		+	+			
(RLIP76) RAN binding protein 2-like						<u> </u>		ŀ	
1 (RANBP2L1)	2	AF012086							
Ran GTPase activating protein 1 (RANGAP1)	3	X82260	+	+	+	+.		+	
RAN, member RAS oncogene family (RAN) (low match)	1	M31469							
RanBP2 (Ran-binding	1	D42063	<u> </u>	-		-		-	
protein 2) (=U19248; L41840 sapiens							•		
nucleoporin (NUP358)) ransforming growth factor.	4	D50683	+	+	+	+		+	·
beta receptor II (70-80kD) (TGFBR2)		200000		ľ	•	. "		*	
RAP1A, member of RAS oncogene family (RAP1A)	10	M22995	+ .	+	+	+	+	+	
RAR-related orphan receptor C (RORC)	1	U16997						+	
RAS guanyl releasing protein 2 (calcium and DAG-regulated)	1	Y12336	+	+	_				
ras homolog gene family, member A (ARHA)	12	X05026	+ .	+	+	+	+	+	high in ovary
ras homolog gene family, member G (rho G) (ARHG)	1	X61587	+	+	+	+			
ras homolog gene family, member H (ARHH)	2	Z35227	+	+	+			+	
ras inhibitor (RIN1)	2	M37191		+				-	
Ras-GTPase activating protein SH3 domain-binding protein 2	2	AF053535	+	+	+	+		+	
(KIAA0660) Ras-GTPase-activating	3	U32519	+	_	+			+	
protein SH3-domain- binding protein (G3BP)		002018	<b>T</b>		. •	+		•	
ras-related C3 botulinum	11	M29871	<del> </del>	$\vdash$	+			+	
toxin substrate 2 (rho family, small GTP binding protein Rac2) (RAC2)	•	• .							
RAS-RELATED PROTEIN RAP-1B (GTP-BINDING PROTEIN SMG P21B)	1	P09526					·	-	
RBQ-1	1	X85133	<u> </u>	+	+	+			
rearranged T cell receptor beta variable region	1	L06891			_				
(TCRB) (=X58810) regulator of Fas-induced	1	AF057557	В				+		
apoptosis (TOSO)			<u> </u>						

signaling 6 (RCS9) regulator of C-protein signaling 14 (RCS14) regulator of C-protein Signaling 14 (RCS14) regulator of C-protein Signaling 14 (RCS14) regulator of C-protein Signaling 5 (RCS5) (49% al) regulator of C-protein Signaling 5 (RCS5) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) regulator (ACS) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (RPA3) (49% al) replication protein ACS (446) (49% al) replication	WO 00/40/49	,		•					_ •	,1/CA00/00003
regulator of C-protein signaling 14 (RGS14)	regulator of G protein signalling 6 (RGS6)	1	AF073920		+					0
regulator of G-protein signalling 2, 24k0 (RGS2) signalling 2, 24k0 (RGS2) signalling 2, Rok (RGS2) signalling 5 (RGS5) (49% ab) signalling 6 (RGS5) (49% ab) sig	regulator of G-protein signalling 14 (RGS14)	2	AF037195	+	+	+	+			
regulator of G-protein signalling 5 (RSS) (49% a) regulatory factor X, 4 (influences HLA class II expression) (RFX) 5 (RSS) (19% a) (influences HLA class II expression) (RFX) 5 (RSS) 6 (RSS)	regulator of G-protein signalling 2, 24kD (RGS2)	6	L13391	+	+	+	+		+	
regulatory factor X, 4 (influences HLA class II expression) (RFX4) (regulatory factor X, 5 (influences HLA class II expression) (RFX4) (regulatory factor X, 5 (influences HLA class II expression) (RFX5) (regulatory factor X, 5 (influences HLA class II expression) (RFX5) (regulatory factor X, 5 (influences HLA class II expression) (RFX5) (regulatory factor) (regulatory factor) (regulatory factor) (regulatory factor) (regulatory factor) (regulatory factor) (regulator) (re	regulator of G-protein signalling 5 (RGS5) (49%	1	O15539							
expression (RFX4) regulatory factor X, 5 (influences HLA class II expression (RFX5) sepilication protein A1 (RPA1) replication protein A3 (RPA1) replication protein A3 (RPA1) replication protein A3 (RPA1) replication protein A3 (RPA1) replication protein A3 (RPA2) (low match) reproduction 8 (D85228Bc) 1	aa) regulatory factor X, 4	1	M69297			+	.+			
(influencés HLA class II expression (RFX5) Fiplicablon protein A1	expression) (RFX4)		V/01==/01c					٠		
Image: Comparison of the com	(influences HLA class II	2	<b>700/00</b>	l I		7				
Company	F≘plication protein A1	1	M63498	+	12.	+ .	# )		· . + ,	*
requiem, apoptosis	replication protein A3	1	L07493				٠,		٠.	
response zinc finger gene (REQ)	reproduction 8 (D8S2298E)	•			+	+	+			
response zinc finger gene (REQ) (=AF001433) (low match)	response zinc finger gene (REQ)	2		+	+	.+	+		+	
(REO) (=AF001433) (low match) restin (Reed-Steinberg cell- expressed intermediate filament-associated protein) (RSN) retinoblastoma 1 (including osteosarcoma) (RSN) retinoblastoma binding protein 2 homolog 1 (RBBP2H) retinoblastoma-binding 1 AF087481 protein 2 (RBBP2H) retinoblastoma-binding 5 S66427 + + + + + + + + + + + + + + + + + + +			U94585							
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AF087481	protein) (RSN)	· •	111010				1	<u> </u>		
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protein 1 (RBBP1) retinoblastoma-binding protein 2 (RBBP2) retinoblastoma-binding protein 4 (RBBP4) retinoblastoma-binding protein 4 (RBBP4) retinoblastoma-binding protein 4 (RBBP4) retinoblastoma-binding protein 7 (RBBP7) retinoblastoma-like 2 (p130) (RBL2) retinoic acid receptor responder (tazarotene nduced) 3 (RARRES3) retinoic acid receptor, alpha (RARA) retinoic acid receptor, retinoic Acid receptor, retinoic Acid receptor, alpha (RARA) retinoic Acid receptor beta (RXR-beta) REV3 (yeast homolog)-like, catalytic subunit of DNA polymerase zeta (REV3L) RNo GDP dissociation protein 4 (ARHGAP4) RNo GTPase activating protein 4 (ARHGAP4) (low match) RNo-associaled, coiled-coil containing protein kinase 2 (ROCK2) RNo-associaled, coiled-coil containing protein kinase 2 (ROCK2) RNo-associaled, coiled-coil containing protein kinase 2 (ROCK2) RNo-associaled, coiled-coil containing protein kinase 2 (ROCK2) RNo-associaled, coiled-coil containing protein kinase 2 (ROCK2) RNo-associaled, coiled-coil containing protein kinase 2 (ROCK2)	protein 2 homolog 1 (RBBP2H1)	· ·								
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Description   Company   Description   Desc	protein 4 (RBBP4)			·	1					
protein 7 (RBBP7) retinoblastoma-like 2	protein 4 (RBBP4)				<u> </u>	<u> </u>	<u> </u>		+	
(p130) (RBL2)         Tetinoic acid receptor responder (tazarotene nduced) 3 (RARRES3)         1         AF060228         + </td <td>protein 7 (RBBP7)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td> <td></td>	protein 7 (RBBP7)								<u> </u>	
responder (tazarotene nduced) 3 (RARRES3) retinoic acid receptor, 1 X06538 + + + + + + + + + + + + + + + + + + +	(p130) (RBL2)	1		<u> </u>		†	<u> </u>	_		
retinoic acid receptor, alpha (RARA) retinoic acid responsive (NN8-4AG) retinoid X receptor beta (RXR-beta) REV3 (yeast homolog)-like, catalytic subunit of DNA polymerase zeta (REV3L) Rho GDP dissociation inhibitor (GDI) beta (ARHGDIB) Rho GTPase activating protein 4 (ARHGAP4) Rho GTPase activating protein 4 (ARHGAP4) (low match) Rho-associated, coiled-coil containing protein kinase 2 (ROCK2) ribonuclease 6 precursor  1	responder (tazarotene	1	AF060228		* .		*	*	*	
retinoic acid responsive (NN8-4AG) retinoid X receptor beta (RXR-beta) REV3 (yeast homolog)-like, catalytic subunit of DNA polymerase zeta (REV3L) Rho GDP dissociation inhibitor (GDI) beta (ARHGDIB) Rho GTPase activating Protein 4 (ARHGAP4) Rho GTPase activating protein 4 (ARHGAP4) (low match) Rho-associated, coiled-coil containing protein kinase 2 (ROCK2) ribonuclease 6 precursor 2 U85625 + + + + + + + +	retinoic acid receptor,	1	X06538	+	+		+			
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catalytic subunit of DNA polymerase zeta (REV3L)  Rho GDP dissociation inhibitor (GDI) beta (ARHGDIB)  Rho GTPase activating protein 4 (ARHGAP4)  Rho GTPase activating protein 4 (ARHGAP4) (low match)  Rho-associated, coiled-coil containing protein kinase 2 (ROCK2)  ribonuclease 6 precursor  2 U85625 + + + + + + +	retinoid X receptor beta (RXR-beta)	-			+	+	+		+	
Rho GDP dissociation 23 L07916 + + + + + + + + + + hinhibitor (GDI) beta (ARHGDIB)  Rho GTPase activating 2 X78817 + + protein 4 (ARHGAP4)  Rho GTPase activating 1 P98171 protein 4 (ARHGAP4) (low match)  Rho-associated, coiled-coil 1 AB014519 containing protein kinase 2 (ROCK2)	catalytic subunit of DNA		AF035537							
Rho GTPase activating 2 X78817 + + + Protein 4 (ARHGAP4)   Rho GTPase activating 1 P98171   protein 4 (ARHGAP4) (low match)   Rho-associated, coiled-coil 1 AB014519   containing protein kinase 2 (ROCK2)   ribonuclease 6 precursor 2 U85625 + + + + + + + + + + + + + + + + + + +	Rho GDP dissociation inhibitor (GDI) beta	23	L07916	+	+	+	+	+	*	
protein 4 (ARHGAP4) (low match)  Rho-associated, coiled-coil 1 AB014519 containing protein kinase 2 (ROCK2)  Inbonuclease 6 precursor 2 U85625 + + + + + + +	Rho GTPase activating protein 4 (ARHGAP4)			<u> </u>	+					
containing protein kinase 2 (ROCK2)    ribonuclease 6 precursor 2 U85625 + + + + + + + + +	protein 4 (ARHGAP4) (low match)	1	_							
	containing protein kinase 2	1	AB014519							
		2	U85625	+ .	+	+	+	+	+	

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(RNASESPL) (low match) (ribonuclesse, RNase A	Gibonia C									
	ribonuclease 6 precursor (RNASE6PL) (low match)	1	U85625							
derived neurotoxin		1	X55988	1				+		
Inhibitor (RNH)	derived neurotoxin) (RNASE2)									
reductase M1 subunit   reductase M1 subunit   reductase M1 subunit   reductase M2 polypepide (non-exact 91%)   ribophorin (NPN2)   1	inhibitor (RNH)	3	M36717	+	+	+	+		+	
M2 polypeptide (non-exact 91%)   1	reductase M1 subunit	1	X65708							
Thosphorin   (RPN1)	M2 polypeptide (non-exact	.1	P31350							·
Indexional 18S rRNX	ribophorin I (RPN1)	1	Y00281	+	+	+	+	H	+	
Indicasomal 28S RNA		7	Y00282	+	+	+	+	+	+	<del>                                     </del>
Inbosomal phosphoprotein		3	M10098		1	· ·		_		
P0, 5UTR (low match)   Ribosomal protein   1				<u> </u>					•	<u> </u>
Inbosomal protein L10   30	IP0, 5'UTR (low match)		D28418		·					
(RPL10) RIBOSOMAL PROTEIN L10A (CSA-19)  10bsomal protein L11 4 X79234 + + + + + + + + + + + + + + + + + + +	· ' '		1.75000	<u> </u>	<u> </u>					
L10A (CSA-19) ribosomal protein L11 4	(RPL10)			<b>†</b>	+	+	+		+	nigh in many libraries
(RPL19)  nbosomal protein L12 (RPL19)  nbosomal protein L13 (RPL13)  nbosomal protein L13 (RPL14)  nbosomal protein L14 (RPL14)  nbosomal protein L17 (RPL17)  nbosomal protein L18 (RPL18)  nbosomal protein L18 (RPL18)  nbosomal protein L18 (RPL18)  nbosomal protein L18 (RPL18)  nbosomal protein L18  CRPL19  nbosomal protein L18  CRPL19  nbosomal protein L18  CRPL19  nbosomal protein L18  CRPL19  nbosomal protein L18  CRPL19  nbosomal protein L19  RRPL19  nbosomal protein L19  RRPL19  nbosomal protein L21  CRPL19  nbosomal protein L21  CRPL21)  nbosomal protein L22  CRPL22)  nbosomal protein L23  CRPL23  nbosomal protein L23  CRPL23  nbosomal protein L23  CRPL23  nbosomal protein L23  CRPL23  nbosomal protein L23  CRPL23  nbosomal protein L23  CRPL23  nbosomal protein L24  CRPL27)  nbosomal protein L26  CRPL27)  nbosomal protein L27  CRPL27)  nbosomal protein L27  CRPL27)  nbosomal protein L27  CRPL27)  nbosomal protein L28  CRPL270  nbosomal protein L28  CRPL270  nbosomal protein L28  CRPL270  nbosomal protein L28  CRPL270  nbosomal protein L28  CRPL270  nbosomal protein L28  CRPL270  nbosomal protein L28  CRPL270  nbosomal protein L28  CRPL270  nbosomal protein L28  CRPL270  nbosomal protein L29  CRPL270  nbosomal protein L29  CRPL270  nbosomal protein L29  CRPL270  nbosomal protein L29  CRPL270  nbosomal protein L29  CRPL270  nbosomal protein L29  CRPL270  nbosomal protein L3  CRPL270  nboso	L10A (CSA-19)			· ·		· .	L			
Toolsomal protein L12   2   L06505   +	(RPL11)							+	+	Alveolar rhabdomyosarcoma
(PRL13) ribosomal protein L14 (RPL14) ribosomal protein L17 (RPL17) ribosomal protein L18 (RPL18) ribosomal protein L18 (RPL18) ribosomal protein L18a (RPL18A) ribosomal protein L18a (RPL18A) ribosomal protein L18a (RPL18A) ribosomal protein L18a 2 X80821 homologue ribosomal protein L19 (RPL19) ribosomal protein L19 ribosomal protein L19 ribosomal protein L21 (RPL21) ribosomal protein L22 3 D17652 + + + + + + + + + + + + + + + + + + +	(RPL19)			+	+	+	+	+	+	
(RPL14)	(PRL13)		•		+	+	+	+	+	high in many libraries
RPL17	(RPL14)		D87735	+	+	+	+	+	+	high in many libraries
(RPL18)  ribosomal protein L18a	(RPL17)	·		+						blood only
RPL18A    gland and skin   mbosomal protein L18a   2   X80821	(RPL18)		L11566	+	+	+	+		+	
Tibosomal protein L18a	(RPL18A)				+	+	+	+	+	High in fetal adrenal gland and skin
(RPL19) ribosomal protein L21 (RPL21) ribosomal protein L22 (RPL22) ribosomal protein L23 (RPL23) ribosomal protein L23 (RPL23) ribosomal protein L23a (RPL23A) ribosomal protein L26 (RPL23A) ribosomal protein L26 (RPL26) ribosomal protein L27 (RPL27) ribosomal protein L27 (RPL27) ribosomal protein L27 (RPL27A) ribosomal protein L27 (RPL27A) ribosomal protein L27 (RPL27A) ribosomal protein L27 (RPL27A) ribosomal protein L28 (RPL27B) ribosomal protein L29 (RPL27B) ribosomal protein L29 (RPL27B) ribosomal protein L29 (RPL29) ribosomal protein L29 (RPL29) ribosomal protein L3 (RPL29) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3) ribosomal protein L3 (RPL3)	homologue						+	ì		
RPL21   RPL22   3	(RPL19)		X63527	+	+	+	+	+	+	
RPL22    RDSoomal protein L23    2	(RPL21)			+	+	+	+	+	+	
RPL23	(RPL22)			+	+	+	+		+	
RPL23A	(RPL23)			+	_	+	+	+	+	high in many libraries
(RPL26)  ribosomal protein L27  (RPL27)  6  L05094  + + + + + + + + + + + + + + + + + + +	(RPL23A)	5	U37230	+	+	+	+	+	+	high in many libraries
(RPL27) ribosomal protein L27a (RPL27A) 10 U14968 + + + + + + + + + + + + + + + + + + +	(RPL26)		<u> </u>		+	+	+	+	+	
(RPL27A) ribosomal protein L28 6 U14969 + + + + + + + + + + + + + + + + + +	(RPL27)	_				+	+		+	
(RPL28) ribosomal protein L29 6 U10248 + + + + + + + + + + ribgh in many librarie (RPL3) ribosomal protein L3 homologue ribosomal protein L30 6 X79238 + + + + + + + high in many librarie	(RPL27A)				+	+	+	+	+	
(RPL29)  ribosomal protein L3 (RPL3)  81  + + + + + high in many libraric ribosomal protein L3 homologue  ribosomal protein L30  6  X79238  + + + + + + high in many libraric	(RPL28)				+	+	+	v	+	
(RPL3)  ribosomal protein L3  homologue  ribosomal protein L3D  6  X79238  + + + + + + + + + + + + + + + + + + +	(RPL29)	•	U10248	+	+	+	+	+	+	
homologue	(RPL3)		·	+	+	+	+	+	+	high in many libraries
ribosomal protein L30 6 X79238 + + + + + + high in lymphoma	homologue								•	
(RPL30)	(RPL30)			+	+	+	+	+	+	high in lymphoma
ribosomal protein L30 1 X79238 (RPL30) (low score)	(RPL30) (low score)		X79238					•		
ribosomal prolein L31 10 X15940 + + + + + High in alveolar	ribosomal protein L31	10	X15940	+	+	+	+	+	+	High in alveolar rhabdomyosarcoma

ribosomal protein L32	3	X03342	+	+	T _	<u> </u>	· ·	T 4	· · · · · · · · · · · · · · · · · · ·
(RPL32)					+	*	+	†	<u> </u> "
ribosomal protein L33-like (RPL33L)	1	AF047440		+	+	+		+	
ribosomal protein L34 (RPL34)	5	L38941		+	+	+	+	+	
ribosomal protein L34 (RPL34) (low match)		L38941.		Ŀ					
ribosomal protein L37 (RPL37)	5	D23661	+	+	+	+	+	+	high in barstead prostate
ribosomal protein L37a	4	X66699	+	+	+	+	+	+	high in many libraries
ribosomal protein L38 (PRL38)	1	Z26876	+	+	+	+	+	+	high in many libraries
ribosomal protein L4 (RPL4)	27	D23660	+	+	+	+	+	+	high in many libraries
(RPL41)	4 :	AFU2U844		,,	7	+	+	+	riigh in many libraries
ribosomal protein L5 (RPL5)	14	. U14966	+	+	+	+	+	+	High in alveolar rhabdomyosarcoma
ribosomal protein L5 (RPL5) (low match)		U14966							
ribosomal protein L6 (RPL6)	7	X69391	+	+	+	+	+	+	high in many libraries
ribosomal protein L7 (RPL7)	14	X52967	+	.+	+	+	+	+	high in conorm
ribosomal protein L7a (RPL7A)	15	M36072	+	+	+	+	+	+	High in uterus, and seminoma
ribosomal protein L8 (RPL8) ribosomal protein L9	5	Z28407	+	+	+	+	+	+	high in ovary
(RPL9)	10	U09953		+	+	+	+	+	·
ribosomal protein S10 (RPS10) ribosomal protein S11	5	U14972	+	+	+	+	+	+	high in many libraries
(RPS11)	4	X06617	+	+	+	+	+	+	high in many libraries
(RPS11) (low match)	3	AB007152							
(RPS12)	2	X53505.	+	+	+	+	+		high in many libraries
(RPS13)	12	L01124 M13934		+	+	+	+	+	
(RPS14)	2	M32405	+	+	+	+	+	+	
(RPS15)	3	M60854	+	+	+ .	+	+	+	
(RPS16)	2	M13932	· .	+	+	+	+		High in prostate invasive tumor
(RPS17)			+	+	+	+	+	+	high in many libraries
	8	X69150		لـــــا					
ribosomal protein S19 (RPS19)	7	M81757	+	+	+.	+	+		high in many libraries
(RPS2)	4	X17206	+	+	+	+	+	+	high in many libraries
RIBOSOMAL PROTEIN S2 (RPS4) ribosomal protein S20	2	P15880							
(RPS20) ribosomal protein S21	3	L06498	+	+	+	+	+	+	high in many libraries
(RPS21)		L04483	+	+	+	+	+	+	high in CD34+/CD38- hematopoietic cells and skin tumor
ribosomal protein S23 (RPS23)	3	D14530		+	+	+		+	
ribosomal protein S24 (RPS24)	7	M31520	+	+	+	+	+		high in uterus
ribosomal protein S25 (RPS25)	3	M64716	+	+	+	+	+	+	high in barstead prostate
ribosomal protein S26 (RPS26)	2	X69654		+	+	+	+	+	
ribosomal protein S27 ((metallopanstimulin 1) (RPS27)	5	U57847	+	+	+		+	+	

ribosomal protein S28 (RPS28)	3	U58682	+	+	+	+		+	
ribosomal protein S29 (RPS29)	2	U14973	+	+	+	+	+	+	
ribosomal protein 53 (RPS3)	9	X55715	+	+	+	+	+	+	high in many libraries
ribosomal protein S3 (RPS3) (low match)	1	U14990	<del>                                     </del>	$\dagger$	<del>                                     </del>	${\dagger}$	-	-	
ribosomal protein S3A (RPS3A)	21	Z83334	<del>                                     </del>	+	+	+	+	+	high in many libraries
ribosomal protein S3A (RPS3A) (low score)	1	M77234		-	<del>                                     </del>	╀╌	<del> </del>	-	
ribosomal protein S4, X- linked (RPS4X)	. 9.	M58458	+	+	+	+	-	+	high in ovary and
ribosomal protein S4, Y- linked (RPS4Y)	2	M58459	+	+	+	+	+	+	Synovial sarcoma
ribosomal protein S5	4	U14970	+ +	+	+	+	+	+	high in lymphoma
(RPS5) RIBOSOMAL PROTEIN S6	1 1	P10660	<del> </del>	-	ļ	<u> </u>			
(PHOSPHOPROTEIN NP33)									
ribosomal protein S6 (RPS6)	22	M20020	+	+	+	+	+	+	<del></del>
ribosomal protein S6 (RPS6) (non-exact 86%)	1	M77232		<del>                                     </del>	<del>                                     </del>			$\vdash$	
ribosomal protein S6	3	L07597	+	+	+	Ļ.,	<u> </u>	ļ.,	<u> </u>
kinase, 90kD, polypeptide 1 (RPS6KA1)		107397	•	+	•	+		+	
ribosomal protein S6 kinase, 90kD, polypeptide 2 (RPS6KA2)	1	X85106			-		,		
ribosomal protein S7 (RPS7)	4	Z25749		+	+	+	+	+.	
ribosomal protein S8 (RPS8)	6	X67247		+	+	+	+	+	
ribosomal protein S9 (RPS9)	8	U14971		1-					colon tumor
ribosomal protein, large, P0 (RPLP0)		M17885	Ţ		+			+	
ribosomal protein, large, P1 (RPLP1)	12	M17886	Т.	+	+		+		·
ribosomal RNA 18S (=M10098; K03432) (=polyadenylating	11.	X03205			٠.	-			
ribosomal RNA 28S					·				. '
ribosomal RNA, 165	2	M11167							
ring finger protein (non-	1	U25123							
exact 58%)	1	AJ001019							·
ring finger protein 3 (RNF3)	1	AJ001019					İ		
ring finger protein 4 (RNF4)	3	AB000468		+	+	+		+	
ring zinc-finger protein (ZNF127-Xp)	3	U41315		+	+	+		+	
RNA (guanine-7-) methyltransferase (RNMT)	1	AB007858	<u> </u>	+	+	+	$\dashv$	+	
RNA binding motif protein 5 (RBM5)	4	U23946	+	+	+	+	$\dashv$	+	
RNA binding motif, single stranded interacting protein	1	D28483		+		+		+	
2 (RBMS2) RNA helicase (putative),		Von							
(Myc-regulated DEAD box protein) (MRD8)		X98743	+	+	+	+		+	
RNA helicase-related		AF083255	<del> </del>	+ 1	+	+	十	+	
protein	•	l· .					- 1		
protein RNA pol II largest subunit		<u> </u> ' ·	<del></del>	-+	$\dashv$				
protein RNA pol II largest subunit RNA polymerase I subunit		X74872 AF008442		+	+		1	+	
protein RNA pol II largest subunit	2	X74872		+	+	+		+	

STOU calcium-binding	•		•							
Iligand, calpactin I, light   potypeptide (pf 11)   (\$100.410)	S100 calcium-binding	2	M81457		T	+		+	+	
STOC   Calcium-binding   1	protein A10 (annexin II						1			
(S100A10) STOC calcium-binding protein A11 (caliguzarin) (S10A11) STOC calcium-binding 3 M80563 B + + + + + + + + + + + + + + + + + +	nolypertide (p11)			•						1
ST00 calcium-binding	(S100A10)					`				
		- 1	X80201	<del></del>	-+-		+	<del> </del>	-	<del> </del>
S1000 calcium-binding   3   M80553   B   + + +   + +   + +		٠.	7,00201		1		'		`	.
protein A4 (calcium protein, calvasculin, murine placental homolog)(S100A4) ST00 calcium-binding protein A (sugaranulin A) (S100A) ST00 calcium-binding protein A (sugaranulin A) (S100A) ST00 calcium-binding B			· :		·					
calvasculin, metastasin, murine placental homologi(S100A4) ST0U calcium-binding protein A8 (calgranulin A) (S100A8) ST0U calcium-binding protein A8 (calgranulin B) ST0U calcium-binding protein A9 (calgranulin B) ST0U calcium-binding 14 X08233	S100 calcium-binding	3	M80563	В		+	<u> </u>	+		<u> </u>
calvasculin, metastasin, murine placental homologi(S100A4) ST0U calcium-binding protein A8 (calgranulin A) (S100A8) ST0U calcium-binding protein A8 (calgranulin B) ST0U calcium-binding protein A9 (calgranulin B) ST0U calcium-binding 14 X08233			1				ļ		١.	`
Name   Name	calvasculin, metastasin.					İ			ļ	
STOQ calcium-binding protein A (caligranulin A)	murine placental		,			l	Ì			
STOO Calcum-binding   14	homolog)(S100A4)				1	·	l	L		· ·
(\$100.8) \$100 calcum-binding protein A9 (calgranulin B) (\$10.40		7	M21005			+	+		+	high in bone marrow
STUD calcrum-binding protein A9 (calgranulin B) (S100A9)	protein A8 (calgranulin A)					1	ŀ			
Inarynx squamous cell   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx call   Inarynx squamous call   Inarynx call   Inarynx call   Inarynx call   Inarynx squamous call   Inarynx squamous call   Inarynx call   Inarynx squamous call   Inarynx squamous call   Inarynx call   Inarynx squamous call   Inarynx squamous call   Inarynx squamous call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx call   Inarynx ca		11	·				1:11	1.1	! ,	
(\$100A9)  \$164 gene	S100 calcium-binding	14	X06233			+	+			
S164 gene	(Calgranulin B)		Ì			l				
Sadenosylmethionine   3   M88003   + + + + + +   +   +   +   +   +   +			X = 400007			<u> </u>	<u> </u>	<u> </u>	<u> </u>	carcinoma
decarboxylase 1 (AMD1)   SB class    Nizocompatibility antigen alpha-chain   SC35-interacting protein 1   (SCRP129)   Scaffold attachment factor   SC35-interacting protein 1   (SCRP129)   Scaffold attachment factor   SC35-interacting protein 1   (SCAMP1)   Scaffold attachment factor   SC35-interacting protein 1   U72355   + + + + + +   +   Head of the scaffold attachment factor   SC35-interacting protein 1   U72355   Scaffold attachment factor   SC35-interacting protein 1   U72355   Scaffold attachment factor   SC35-interacting protein 2   U72355   Scaffold attachment factor   SC35-interacting protein 2   U72355   Scaffold attachment factor   U72355		1				l	1	L		1
SB classII histocompatibility antigen alpha-chain	S-adenosylmethionine	3	M88003	#0.250	+	+	+		+	
histocompatibility antigen alpha-chain   SC3S-interacting protein 1   SC3S-interacting protein 1   SC3S-interacting protein 1   SC3S-interacting protein 1   U72355   + + + + + + + + + + + + + + + + + +	decarboxylase 1 (AMD1)				<u> </u>	1				l .
alpha-chain SC35-interacting protein 1 (SRRP129) Scaffold attachment factor B (SAFB) Scaffold attachment factor B (SAFB) (non-exact 78%) ScAFB (non-exact 78%) ScAFB (non-exact 78%) SCEC14 (S. cerevisiae)-like (SEC141) SEC23-like protein B (SEC34) SEC3-like protein B SEC53 (SEC83) SEC53 (SEC83) SEC53 (SEC83) SEC54 (SEC32) SEC54 (SEC32) SEC54 (SEC32) SEC54 (SEC32) SEC54 (SEC32) SEC54 (SEC32) SEC54 (SEC32) SEC54 (SEC32) SEC54 (SEC32) SEC54 (SEC32) SEC55 (SEC5) SEC55 (SEC5)		5	M27487	+	+	+	+		+	
SC35-interacting protein   1						]	1		1	·
(SRRP129)  8 (SAFB)  8 (SAFB)  8 (SAFB)  8 (SAFB)  8 (SAFB)  9 (SEC141)  9 (SEC141)  9 (SEC141)  9 (SEC141)  9 (SEC23B)  9 (SEC3B)  9 (SEC3B)  9 (SEC3B)  9 (SEC3B)  9 (SEC3B)  9 (SEC3B)  9 (SEC3B)  9 (SEC3B)  9 (SEC3B)  9 (SEC3B)  1 (SEC3B)						<u> </u>				
Scaffold attachment factor   1	SC35-interacting protein 1	5	AF030234	+	+	+	+	+	+	
B (SAFB) scaffold attachment factor B (SAFB) (non-exact 78%) SCRNA molecule, transcribed from Alu repeat SEC14 (S. cerevisiae)-like (SEC14L) SEC23-like protein B (SEC38) SEC83 (SEC83) SEC83 (SEC83) SEC83 (SEC83) SEC83 (SEC83) SEC83 (SEC83) SEC83 (SEC83) SEC84 (SEC84) SEC94 (SEC84) SEC94 (SEC84) SEC94 (SEC84) SEC94 (SEC85) SEC94 (SEC85) SEC94 (SEC85) SEC94 (SEC85) SEC94 (SEC85) SEC95 (SEC85) SEC94 (SEC95) SEC94 (SEC95)					<u> </u>		<u> </u>	<u> </u>		<u> </u>
U72355   U723555   U723555   U723555   U723555   U723555   U723555   U723555   U723555   U723555   U723555   U723555   U723555   U723555   U723555   U7235555   U7235555   U7235555   U72355555   U72355555   U72355555   U723555555   U723555555   U723555555   U723555555   U723555555   U7235555555   U7235555555   U7235555555   U7235555555   U7235555555   U7235555555   U72355555555   U72355555555555   U723555555555555555555555555555555555555		1	U72355	+ .	+	+	+	ł	+	·
B (SAFB) (non-exact 78%) scRNA molecule, transcribed from Alu repeat SEC14 (S. cerevisiae)-like (SEC14L) SEC3-like protein B (SEC3-like protein B (SEC23-like protein B (SEC33-like protein B (SEC33-like protein B (SEC33-like protein B (SEC33-like protein B (SEC33-like protein B (SEC33-like protein B (SEC33-like protein B (SEC33-like protein B (SEC33-like protein B (SEC3-like protein B (SE3						L			Ŀ	
ScRNA molecule, transcribed from Alu repeat   SEC14 (S. cerevisiae)-like   4		1	U72355		1 .	1				
transcribed from Alu repeat SEC14 (S. cerevisiae)-like (SEC14L) SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC23-like protein B (SEC3-like protein A-100141							<u> </u>			
SEC14 (S. Cerevisiae)-like   4		1	L13/13						ľ	
(SEC14L) SEC23B) SEC63 (SEC83) SEC63 (SEC83) SEC63 (SEC83) SEC63 (SEC83) SEC63 (SEC83) SEC63 (SEC83) SEC64 (SEC83) SEC64 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC83) SEC65 (SEC84) SEC65 (SEC64) SEC65 (SEC64) SEC65 (SEC64) SEC65 (SEC64) SEC65 (SEC64) SEC65 (SEC64) SEC65 (SEC64) SEC65 (SEC64) SEC65 (SEC64)	iranscribed from Alu repeat	<u></u>	507000		ļ.,	<u> </u>	L			· · · · · · · · · · · · · · · · · · ·
SEC23-like protein B   2	(SEC14)	4	D67029		+	+	+	1	+	
(SEC23B)	SEC72 like protein B		· ONTREE		<b>↓</b>	<b>.</b>	↓	L	<u> </u>	
SEC63 (SEC63)   1	SEC23-like protein 8	2	X97000	+	+	+	+	1	+	l
secreted protein, acidic, cysteine-rich (osteonectin) (SPARC) secretory carrier membrane protein 1 (SCAMP1) secretory carrier 1 AF038966		- 4	A = 4 D D 4 4 4		<del> </del>	<del></del>	ļ		<u> </u>	
Stroma   S		-							*	
SPARC    Secretory carrier   membrane protein 1   SCAMP1    Secretory carrier		7	M25746		+	+	+	+	+	
Secretory carrier membrane protein 1	Cysteine-rich (osteonectin)	. :			1	1		1	ı	stroma
Material Reservation   Material Reservation			12400000		L		L_			
SECAMP1    Secretory carrier   1	secretory carner	7	AF038966		+	l	+	İ		
Secretory carrier membrane protein 2 (SCAMP2) Secretory carrier 1 AF005038 + + + + + + + + + + + + + + + + + + +	Inemorane protein 1				.]	l				1
membrane protein 2 (SCAMP2) secretory carrier membrane protein 3 (SCAMP3) secretory granule proteoglycan core (ctones lambda-PG[6,7,8]) selectin L (lymphocyte adhesion molecule 1) (SELL) selectin P ligand (SELPLG) selectin P ligand (SELPLG) sema domain, immunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D) Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM180) serine palmitoyltransferase subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + +			A E ANE A 2 d	<del></del>	<del>                                     </del>		ļ.,	<u> </u>	<u>.                                    </u>	
(SCAMP2) secretory carrier membrane protein 3 (SCAMP3) secretory granule proteoglycan core (ctones lambda-PG[6,7,8]) selectin L (lymphocyte adhesion molecule 1) (SELL) selectin P ligand (SELPLG) sema domain, immunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D) Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM180) serine palmitoyltransferase subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + +	membrane protein 2	1.	AF003030	. •	*		T	_	▼	1.
Secretory carner membrane protein 3 (SCAMP3) Secretory granule proteoglycan core (ctones lambda-PG[6,7,8]) Selectin L (lymphocyte adhesion molecule 1) (SELL) Selectin P ligand (SELPLG) 13 U02297 + + sema domain, immunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D)  Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160) Serine palmitoyltransferase 1 Y08685 + + + + subunit I (SPTI) Serine palmitoyltransferase, 1 AB011098 + + + + + + +					l	1	1	1		1
membrane protein 3 (SCAMP3)  secretory granule proteoglycan core (clones lambda-PG[8,7,8])  selectin L (lymphocyte adhesion molecule 1) (SELL)  selectin P ligand (SELPLG)  sema domain, immunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D)  Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160)  serine palmitoyltransferase, 1 AB011098 + + + + + +		<del></del>	AE005039		<del> </del>	<del></del>		├	┝┷	<del> </del>
SCAMP3    Secretory granule   1   M33649		'	A 000000		1	ĺ			1	.1
Secretory granule proteoglycan core (ctones lambda-PG[6,7,8])  Immoda-PG[6,7,8])  Selectin L (lymphocyte adhesion molecule 1)  (SELL)  Selectin P ligand (SELPLG) 13 U02297 + +   Sema domain, 2 U60800 + + + +   Immunoglobulin domain  (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D  (SEMA4D)  Ser/Arg-related nuclear amatrix protein (plenty of prolines 101-like)  (SRM160)  Serine palmitoyltransferase 1 Y08685 + + + +   Serine palmitoyltransferase, 1 AB011098 + + + + + + + +   Total Contents 10 Advanced 1 AB011098 + + + + + + + + + + + + + + + + + + +							i i			1
proteoglycan core (ctones lambda-PG[6,7,8]) selectin L (lymphocyte addresion molecule 1) (SELL) selectin P ligand (SELPLG) 13 U02297 + + +  sema domain,		1	M33649		<del>                                     </del>		<del> </del>		-	<del> </del>
lambda-PG[6,7,8]) selectin L (lymphocyte adhesion molecute 1) (SELL) selectin P ligand (SELPLG) 13 U02297 + + sema domain, immunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D) Ser/Arg-related nuclear admix protein (plenty of prolines 101-like) (SRM160) Serine palmitoyltransferase 1 Y08685 + + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + + +	proteoglycan core (clones		,		l				l	
selectin L (lymphocyte adhesion molecule 1) (SELL) selectin P ligand (SELPLG) 13 U02297 + + + sema domain, immunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D) Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160) serine palmitoyltransferase 1 Y08685 + + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + + + +	lambda-PG[6,7,8])	·		· •	1			i		
adhesion molecule 1) (SELL) selectin P ligand (SELPLG) 13 U02297 + + sema domain, immunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D) Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160) serine palmitoyltransferase 1 Y08685 + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + +		43	X17519	+			+	_	+	<del> </del>
selectin P ligand (SELPLG) 13 U02297 + + +	adhesion molecule 1)						l	1	l	
sema domain, 2 U60800 + + + + + himmunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D)  Ser/Arg-related nuclear 4 AF048977 + + + + + himmunoglobulines 101-like) (SRM160) serine palmitoyltransferase 1 Y08685 + + + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + + + +							i		l	
immunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D)  Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160) serine palmitoyltransferase 1 Y08685 + + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + +	selectin P ligand (SELPLG)	13	U02297	+	+				-	
immunoglobulin domain (lg), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D)  Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160) serine palmitoyltransferase 1 Y08685 + + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + +	sema domain	7	USOROO		1	<u> </u>	+	├	-	<del>                                     </del>
(Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D)  Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160) serine palmitoyltransferase 1 Y08685 + + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + +		_	000000		-	l	*		*	
domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D)  Ser/Arg-related nuclear 4 AF048977 + + + + + + + + + + + + + + + + + +	(lg), transmembrane						1		l	.
cytoplasmic domain, (semaphorin) 4D (SEMA4D)  Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160) serine palmitoyltransferase 1 Y08685 + + + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + +				-					l	1
(semaphorin) 4D (SEMA4D)  SeriArg-related nuclear 4 AF048977 + + + + + + + + + + + + + + + + + +	cytoplasmic domain,						1	1	l	}
(SEMÁ4D)  Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160) serine palmitoyltransferase 1 Y08685 + + + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + + +					1	1	1		l	Į . I
Ser/Arg-related nuclear 4 AF048977 + + + + + + + + + + + + + + + + + +				•	ì		ŀ		l	į l
matrix protein (plenty of prolines 101-like) (SRM160) serine palmitoyltransferase 1 Y08685 + + + + + subunit I (SPTI) serine palmitoyltransferase, 1 AB011098 + + + + + +	Ser/Arg-related nuclear	4	AF048977		+	+	+	+	+	<u> </u>
Drolines 101-like) (SRM160)   Serine palmitoyltransferase   1   Y08685   + + + + +   +   Serine palmitoyltransferase,   1   AB011098   + + + + + +   +   +	matrix protein (plenty of	٠.				1	1		.	·
(SRM160)  Serine palmitoyltransferase 1 Y08685 + + + + + + subunit I (SPTI)  Serine palmitoyltransferase, 1 AB011098 + + + + + +	prolines 101-like)		1	•			1		Ι.	
subunit I (SPTI)	(SRM160)				1			1	1	
serine palmitoyltransferase, 1 AB011098 + + + + +	serine palmitoyltransferase	1	Y08685	-	+	+	+		+	1
serine palmitoyltransferase, 1 AB011098 + + + + + +	subunit I (SPTI)			<u> </u>			L		١	<u>[</u> ]
	serine palmitoyltransferase,	1	AB011098	+	+	+	+		+	
subunit II (LCB2)	Isubunit II (I CR2)		1	,	1		•	1	l	1

serine protease	1	J02907	T	Т	T	Т	Т	Т	\$1. The state of t
serine protease inhibitor, Kunitz type, 2 (SPINT2)	1	U78095	+	+	+	+	T	+	
serine/threonine kinase 10 (STK10)	1	AB015718	+	+	+	+	╁╌	+	
serine/threonine kinase 19 (STK19)	1	L26260	+	+	+	+		+-	
serine/threonine kinase 4 (STK4)	1	U18297	<del>                                     </del>	+	-	<u> </u>	-	+	
serine/threonine protein kinase KKIALRE (KKIALRE)	1	X66358		+	+	+	$\vdash$	+	
serine/threonine protein- kinase (NIK)	1	Y10256		+-	+	+	┢	-	
SERINE/THREONINE- PROTEIN KINASE RECEPTOR R3	1	P37023					ļ -		
PRECURSOR (SKR3) serologically defined colon cancer antigen 16 (NY-CO-	2	AF039694		-		-	_	<del> -</del>	
serologically defined colon cancer antigen 33 (SDCCAG33)	1	AF039698	B, T	+	+	-	+		
serologically defined colon cancer antigen 33 (SDCCAG33) (low score)	1:	AF039698							
serologically defined colon cancer antigen 33 (SDCCAG33) (low score)	1	AF039698				-			
serum deprivation response (phosphatidylserine-binding	1	AF085481.1							
protein) (SDPR) (=S67386) serum/glucocorticoid	2	Y10032	+	+	+	+	L	+	
regulated kinase (SGK) SET domain, bifurcated 1	2	D31891	+	+	+	<u> </u>		+	
(SETDB1) SH2 domain protein 1A,	1	AF073019	T					+	
Duncan's disease lymphoproliferative syndrome) (SH2D1A)								·	
SH3 binding protein (SAB)	2	AB005047	+	+	+	+		+	
SH3 domain protein 1B (SH3D1B)	4	U61167	+			+		+	
SH3BGR PROTEIN (=21- GLUTAMIC ACID-RICH PROTEIN;21-GARP) (non- exact 82%gg)	1	P55822							
SH3-binding domain glutamic acid-rich protein like (SH3BGRL)	1	AF042081	. +	+	+	+		+	
SH3-domain GRB2-like 1 (SH3GL1)	1	U65999	+	+	+	+		+	
SHC (Src homology 2 domain-containing) transforming protein 1 (SHC1)	2	X68148		+	+	+		+	
siah binding protein 1 (SiahBP1)	2	U51586		+	+	+		+	
siah binding protein 1 (SiahBP1) (non-exact, 69%)	1	U51586					•		
Sialomucin CD164 (CD164)	9	D14043		一十		$\dashv$		$\dashv$	·
sialophorin (gpL115, leukosialin, CD43) (SNP)	2	J04536			$\dashv$	$\dashv$		$\neg$	
sialyltransferase (STHM)	1	U14550		- 1	+	+	_	+	
sialyltransferase 1 (beta- galactoside alpha-2,6- sialytransferase) (SIAT1)	2	X17247	+	+	+	+	+	*	

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sialyltransferase 4A (beta- galactosidase alpha-2,3- sialytransferase) (SIAT4A)	1	AF059321	В	+	+,		+	+	
sialyltransferase 8 (alpha- 2, 8-polysialytransferase) D (SIAT8D)	1	L41680	,	+					
signal peptidase 25kDa subunit	1	L38950			:				
signal recognition particle 14kD (homologous Alu RNA-binding protein) (SRP14)	1	X73459	+	+	+	+	+	+	
signal recognition particle  54kD (SRP54)	1	U51920			+	+		+	-
signal recognition particle ଥାଇ (SRP9)	2	U20998		+	+	+	+	+,	
signal recognition particle receptor ('docking protein') SRPR		X06272							
signal regulatory protein, beta, 1 (SIRP-BETA-1)	5	Y10376		+				+	
signal sequence receptor, alpha (translocon- associated protein alpha) (SSR1)	2	Z12830				+	•	+	
signal sequence receptor, beta (translocon- associated protein beta) (SSR2)	2	X74104	+	+	+	+	-	+	
signal transducer and activator of transcription (STAT5A)	4	L41142	+	+	+	+	+	+	·
signal transducer and activator of transcription 2, 113KD (STAT2)	1	U18671						+	
signal transducer and activator of transcription 3 (acute-phase response factor) (STAT3)	3	L29277							
signal transducer and activator of transcription 5A (STAT5A)	2	U48730	+	+	+	+	+	+	
signal transducing adaptor molecule (SH3 domain and ITAM motif) 1 (STAM)	1	U43899							
silencing mediator of retinoid and thyroid hormone action (SMRT) similar to beta-transducin		U37146	+	+	+			+	
superfamily proteins (SAZD)		AB011169	<b>T</b>	<b>*</b>	+	+			
SSM4 (TEB4) similar to yeast pre-mRNA	1	AF026031	•	T	+	+	<u>L</u> .	+	
splicing factors, Prp1/Zer1 and Prp6			Ť	<b>.</b>	Ţ				
SIT protein Sjogren syndrome antigen	1 2	AJ010059.1 M62800			<u> </u>	<u> </u>	Ļ		
A1 (52kD, ribonucleoprotein autoantigen SS-A/Ro) (SSA1)	•	11.02000							
Sjogren syndrome antigen A1 (52kD, ribonucleoprotein	1	M62800							
autoantigen SS-A/Ro) (SSA1) (non-exact 63%) (match to zinc finger)									
SKAP55 homologue (SKAP-HOM)	1	AJ004886		+	+	+		+	
skb1 (S. pombe) homolog (SKB1)	2	AF015913	+	+	+	+		+	
		<del></del>				<del></del>			

skeletal muscle abundant	T - T -	X87613	<del></del>			<del>,</del>	, _		
protein			+	+	+	+		*	
SMA3 (SMA3)	1	X83300	+	+		+		+	
small acidic protein	3	U51678	+	+	+	+	1	+	
small EDRK-rich factor 2 (SERF2)	2	Y10351	+	+	+	+	+	+	high in fetal lung
small inducible cytokine A5 (RANTES) (SCYA5)	2	M21121	+	+	+	+	+	+	high in many libraries
small inducible cytokine subfamily C, member 2 (SCYC2)	1	D63789				-			
small nuclear ribonucleoprotein polypeptide B" (SNRPB2)	2	M15841		+	+	+		+	
small nuclear ribonucleoprotein polypeptide N (SNRPN)	4	J04615	+ ;	+	+	+	+	+	
small nuclear	2	J04564	+	+	+	+	├_	-	· :
ribonucleoprotein polypeptides B and B1 (SNRPB)							٠.	`	
small nuclear RNA activating complex, polypeptide 5, 19kD (SNAPC5)	1	AF093593	+	+	+	+		+	
smallest subunit of ubiquinol-cytochrome c	1	D55636	+	+	+	+	+.	+	high in fetal lung
reductase SMC (mouse) homolog, X chromosome (SMCX)	1	L25270	+	+	+	+		+	
SMT3B protein (2)	2	X99585	+	+	+	+	+	+	<u> </u>
SNARE protein (YKT6) (low match)	. 1	U95735		-				<u> </u>	
SNC19	<del>- 1</del>	U20428							
SNC73 protein (SNC73)		J00220	+	-		+		<u> </u>	
solute carrier family 1		U53347		+		<del>-</del>	+	+	high in many libraries
(neutral amino acid transporter), member 5 (SLC1A5)	<b>-</b> .			Ť		*		+	
Solute carrier family 11 (proton-coupled divalent metal ion transporters),	. 7	D50403	+				<u>·</u>		
member 1 (SLC11A1) solute carrier family 17		LICOPEAR					* .		
(sodium phosphate), member 3 (SLC17A3)	1	U90545				*			
solute carrier family 19 (folate transporter), member 1 (SLC19A1)	1	U17566	B, lymphoma	+			+		
solute carrier family 2	3	K03195	+	+	+	┿┤	+	+	
(facilitated glucose transporter), member 1 (SLC2A1)	•			. [					
solute carrier family 23 (nucleobase transporters), member 2 (SLC23A2)	3	D87075		+	+	+		+	
solute carner family 25 (mitochondrial carrier; excelutarate carrier)	1	AF070548	В, Т	+	+		+	+	
member 11 (SLC25A11) solute carrier family 31	- <del></del>	Linnana							<u> </u>
(copper transporters), member 2 (SLC31A2)	3	U83461		+		+			
solute carrier family 4, anion exchanger, member 2 (erythrocyte membrane protein band 3-like 1) (SLC4A2)		X62137	·	+	+			+	
solute carrier family 4, sodium bicarbonate cotransporter, member 8 (SLC4A8)	1	AB018282		+					
			·					1	

solute carrier family 7 (cationic amino acid transporter, y+ system), member 5 (SLC7A5)	2	M80244	T, W	+	+	T	1 +	Τ.	1
							ľ		
solute carrier family 7	3	D87432	<del>                                     </del>	├	+	┼	<u> </u>	-	
(cationic amino acid transporter, y+ system),						1.	-		! 
member 6 (SLC7A6) solute carrier family 7	1	D87432		L	<u> </u>	_	ŀ	<u> </u>	·
(cationic amino acid transporter, y+ system), member 6 (SLC7A6) (non-	'	1				:			
exact 77%) solute carrier family 9		AF030409		<u> </u>	L	<u> </u>			
(sodium/hydrogen exchanger), isoform 6 (SLC9A6)	• • • • • •	A1 030409	111	+	Ť	+		+	·
somatic cytochrome c	2	M22877				+-			
SON DNA binding protein (SON)	2	X63753		+	+	+		+	
son of sevenless (Drosophila) homolog 1 (SOS1)	1	L13858	+	+	,-	+			
sorcin (SRI)	<del></del>	M32886		<del> </del>	<del> </del>	-			
sortilin 1 (SORT1)	2	X98248	1	+	<u> </u>	+		+	
sortilin-related receptor, L(DLR class) A repeats- containing (SORL1)	6	Y08110					·		
sorting nexin 1 (SNX1)	3	U53225	+	+	+	+		+	
sorting nexin 2 (SNX2)	.2	AF043453				-			<del></del>
sorting nexin 6 (SNX6) (=U83194.1 TRAF4- associated factor 2)	1	AF121856.1							
Sp3 transcription factor (SP3)	1	X68560	+	+.	+	+		+	
Sp3 transcription factor (SP3)	4	M97191	+	+	+	+		+	
special AT-rich sequence binding protein 1 (binds to nuclear matrix/scaffold- associating DNA's) (SATB1)	1	M97287							
speckle-type POZ protein (SPOP)	4	AJ000644		·					
speckle-type POZ protein (SPOP) (non-exact)	1	AJ000644						_	·
spectrin SH3 domain binding protein 1 (SSH3BP1)	6	U87166	+	+	+	+			
Spectrin, alpha, non- erythrocytic 1 (alpha-fodrin) (SPTAN1)	2	J05243			+			+	
spermidine/spermine N1- acetyltransferase (SAT)	11	M55580							
spermidine/spermine N1- acetyltransferase (SAT) (non-exact, 84%)	1	U40369							
spermine synthase (SMS)	1	AD001528	+	+	+	+	$\neg$	+	· · ·
SPF31 (SPF31)	1	AF083190	+ -	+	+	+		+	
sphingomyelin phosphodiesterase 1, acid lysosomal (acid sphingomyelinase) (SMPD1)	1	X52679		+	+		+		
SPINDLÍN HOMOLOG (PROTEIN DXF34)	1	Q99865				$\dashv$	_	+	·
spinocerebellar ataxia 1 (olivopontocerebellar ataxia 1, autosomal dominant, ataxin 1) (SCA1)	3	X79204	В	+			+		

:WO 00/40749			•					. P	CT/CA00/00005
spinocerebellar ataxia 2	1	U70323	В				+		., -
(olivopontocerebellar ataxia 2, autosomal dominant, ataxin 2) (SCA2)		·	٠						
spinocerebellar ataxia 7	2	AJ000517				<u> </u>		├	
(olivopontocerebellar atrophy with retinal degeneration) (SCA7)	2	73000317	• .	Ť					
spliceosome associated protein (SAP 145)	. 3	U41371		+	+	+,	+	+	
splicing factor (CC1.3)	2	L10910	+	+	+	+.	+	+	
splicing factor SRp40-1 (SRp40)	. 7.	U30826	+	+	+	+	+	+	
splicing factor, arginine/serine-rich 11 (SFRS11)	3	M74002	В	+	+		+	+	
splicing factor, arginine/serine-rich 7 (35kD) (SFRS7)	4	L41887		+	+	.+		+	
Src-like adapter protein (non-exact, 76%aa)	1 .	U30473					7		
Src-like-adapter (SLA)	6	D89077		+	+	+		+	
Src-like-adapter (SLA) (low match)	1	D89077			_				
Src-like-adapter (SLA) (low score)	1	U44403							
stannin (SNN)	2	AF030196	+	+	+	+		+	
STAT induced STAT	1 .	AB004904				+		1	
inhibitor 3 (SSI-3) STE20-like kinase 3 (MST-	2	AF024636	+	+	+	+		+	
step II splicing factor SLU7 (SLU7)	1	AF101074		+	·	.+.	+	+	
steroid sulfatase	1	M17591		-					
steroid sulfatase	1	J04964	· · · · ·	++	+	.+	-		
(microsomal), aryisulfatase C, isozyme S (STS)	• •								
sterol carrier protein 2 (SCP2)	1	M55421		+	+	+	+	+	
sterol O-acyltransferase (acyl-Coenzyme A: cholesterol acyltransferase) 1 (SOAT1)	1	AF059202					+		
stimulated trans-acting factor (50 kDa) (STAF50)	6	X82200	+	+		+			
Striatin, calmodulin-binding protein (STRN) (low match, 71%aa)	1	U17989							
Stromal antigen 2 (STAG2)	2	Z75331		+	+	+	+	+	
stromal interaction molecule 1 (STIM1)	3 .	U52426	+	+	+	+	<u> </u>	+	
structure specific recognition protein 1 (SSRP1)	1	M86737	<del></del>	+	+	+		+	
succinate dehydrogenase complex, subunit A, flavoprotein (Fp) (SDHA)	5	L21936	·		+				
succinate dehydrogenase complex, subunit B, iron sulfur (Ip) (SDHB)	1	U17248	+	+	+	+	·	+	
succinate dehydrogenase complex, subunit C, integral membrane protein	. 1	U57877	+	+	+	+		+	
15kD (SDHC) succinate dehydrogenase complex, subunit D, Integral membrane protein	3	AB006202	·.	+	+	-	+	<del> </del>	
(SDHD)						L		$oxed{oxed}$	
succinate-CoA ligase, GDP-forming, beta subunit (SUCLG2)	1	AF058954		+	+	+	+	+	

Succiny   CoA synthelase	WO 00/40749	· .							PÇ	J1/CA00/00005
bimD6, Aspergillus   midulans) homolog (SUDD)   sulforansferase family 1A, phenol-prefering, member   sulforansferase family 1A, phenol-prefering, member   sulforansferase family 1A, phenol-prefering, member   sulforansferase family 1A, phenol-prefering, member   sulforansferase family 1A, phenol-prefering, member   sulforansferase family 1A, phenol-prefering, member   subject (SUDT)   supercivate dismulase 1, soluble (amyotrophic lateral sclerosis 1 (adult)) (SOD1)   supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 3, supercivate dismulase 2, supercivate dismulase 3, supercivate dismulase 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, superc	succinyl CoA synthetase	1	Z68204	:						
bimD6, Aspergillus   midulans) homolog (SUDD)   sulfornationate as family 1A, phenol-prefering, member   sulfornationate as family 1A, phenol-prefering, member   sulfornationate as family 1A, phenol-prefering, member   sulfornationate as family 1A, phenol-prefering, member   sulfornationate as family 1A, phenol-prefering, member   sulfornationate as family 1A, phenol-prefering, member   sulpercivate dismulase 1, soluble (amyotrophic lateral sciences 1 (aduft) (SOD1)   supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 3, supercivate dismulase 2, supercivate dismulase 2, supercivate dismulase 3, supercivate dismulase 3, supercivate dismulase 3, supercivate dismulase 4, supercivate 4, supercivate dismulase 4, supercivate dismulase 4, supercivate dismulase 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate 4, supercivate	sudD (suppressor of	2	AF013591		+			+	+	<del> </del>
sillofransferse family 1A, 1	bimD6, Aspergillus	-	7 07.000							
phenol-preferring, member   (SULT1AF)   Sulforansierase family 1A, phenol-preferring, member   STAULT1AS) (non-exact STAULT1AS) (non-exact STAULT1AS) (non-exact STAULT1AS) (non-exact Staulth) (SOD1)   Superoxide dismutase 1,   Soluble (amyotrophic lateral sclerosis 1 (adulth) (SOD1)   Superoxide dismutase 2,	inidulans) homolog (SUDD)		.•							
1 (SULT1A1) sullotranslerase family 1A, phenol-preferring, member 3 (SULT1A5) (non-exact 57%) (non-exact 57%) (non-exact 57%) (non-exact 57%) (supercycling plantal solerosis 1 (edutily) (SOD1) (SUPCOME) (SOD1) (SUPCOME) (SOD2) (SUPCOME) (SIGNULISES 2 (SUE) (SUR) (SUE) (		1	L19999		+			+	+	
Sulforpasseriase family 1A, phenol-prefering, member 3 (SULT14A) (non-exact 67%)   Superoxide dismulase 1, soluble (amyotrophic lateral sclerosis 1 (adulh) (SOD1)   Superoxide dismulase 2, 5	phenol-preferring, member				1					•
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3 (SULT14A3) (non-exact 67%) superoxide dismutase 1, soluble (amyotrophic lateral sclerosis 1 (adult)) (SOD1) superoxide dismutase 2, mitochrondrie (SOD2) superoxide dismutase 2, mitochrondrie (SOD2) superoxide dismutase 2, mitochrondrie (SOD2) superoxide (SOD3) s	sulfotransferase family 1A,	1	U37686						1	
67%) superexide dismulase 1, soluble (amyotrophic lateral soluble (amyotrophic lateral sclerois 1 (auth)) (SOD1) superoxide dismulase 2, mytochondrial (SOD2) supervillin (SVIL) 2 AF051851 + + + + + + + + + + + + + + + + + + +	pnenoi-pretering, member 1									•
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sclerosis 1 (adult) (SOD1) superoxide dismulase 2,		7 .	702317	,				•		
Superoxide dismulase 2	sclerosis 1 (adult)) (SOD1)				1 '					•
Suppression of tumorisers of the temperature of the temperature of tumorisers of the temperature of tumorisers of the temperature of temperature of temperature of temperature of temperature of temperature of the temperat	superoxide dismutase 2.	5	Y00985		+	+	+	+	+	
Suppression of   Lumorigenicity 5 (ST5)   Lumorigenicity 5 (ST5)   Lumorigenicity 5 (ST5)   Lumorigenicity 6 (ST5)   Lumorigenicity 6 (ST5)   Lumorigenicity 6 (ST5)   Lumorigenicity 6 (ST5)   Lumorigenicity 6 (ST5)   Lumorigenicity 6 (Non-exact 82%)   Suppressor of XY transport defect 1 (St01)   AF038960   + + + + + + + + + + + + + + + + + +			ļ,	,	Į I	-1	,	,	<b>l</b>	1 2
tumorigenicity 5 (ST5) suppression of transport defect 1 (St01) suppressor of IX+ transport defect 1 (St01) su	supervillin (SVIL)	. 2	AF051851			+	+		. +	
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Suppression of tumorigenicity 5 (ST5) (non-exact 82%)   Suppressor of K+ transport   1		<del>.</del> .								
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defect 1 (SKD1)   Suppressor of 1y (S.cerevisiae) 3 homolog (SUPT3H)   Suppressor of 1y (S.cerevisiae) 4 homolog 1 (SUPT3H)   Suppressor of 1y (S.cerevisiae) 5 homolog (SUPT3H)   Suppressor of 1y (S.cerevisiae) 6 homolog (SUPT3H)   Suppressor of 1y (S.cerevisiae) 6 homolog (SUPT3H)   Suppressor of 1y (S.cerevisiae) 6 homolog (SUPT3H)   Suppressor of variegation 3-9 (Drosophila) homolog 1 (SUV39H1)   Suppressor of variegation 1   AF019988   + + + + + + + + + + + + + + + + + +	(non-exact 82%)			·	L	L l		L		<u> </u>
Suppressor of Ty (S. cerevisiae) 3 homolog (SUPT3H)   Suppressor of Ty (S. cerevisiae) 4 homolog 1 (SUPT3H)   Suppressor of Ty (S. cerevisiae) 5 homolog (SUPT3H)   Suppressor of Ty (S. cerevisiae) 6 homolog (SUPT3H)   Suppressor of Ty (S. cerevisiae) 6 homolog (SUPT3H)   Suppressor of Variegation 3-9 (Drosophila) homolog 1 (SUPT3H)   Suppressor of variegation 3-9 (Drosophila) homolog 1 (SUV39H1)   Survival of motor neuron 1, telomeric (SMN1)   Survival of motor neuron 1, telomeric (SMN1)   Survival of motor neuron 1, telomeric (SMN1)   Survival of motor neuron 1, telomeric (SMN1)   Survival of motor neuron 1, telomeric (SMARCA1) (non-exact, 75%)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 4 (SMARCA4)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCA4)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCA4)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCCA)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCCA4)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCCA5)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCCA4)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCA5)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCA5)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCA5)   SW/JSNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCA5)   SW/JSNF related, matrix associated, actin dependent regulator of		1	AF038960		· ·	+	+			
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SUPT3H  Suppressor of Ty   Cs.cerevisiae) 4 homolog 1   SUPT3H  Suppressor of Ty   Cs.cerevisiae) 5 homolog (SUPT3H  Suppressor of Ty   Cs.cerevisiae) 6 homolog (SUPT3H  Suppressor of Ty   Cs.cerevisiae) 6 homolog (SUPT3H  Suppressor of variegation 3-9 (Drosophila) homolog 1   SUV39H  Suppressor of variegation 3-9 (Drosophila) homolog 1   SUV39H  Suppressor of variegation 3-9 (Drosophila) homolog 1   SUV39H  Survival of motor neuron 1, telomeric (SMN1)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 1 (SMARCA1)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA4)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA4)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA4)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCA2)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCCA)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCCB)   Sylvaptocable actin dependent regulator of chromatin, subfamily c, member 2 (SMARCCB)   Sylvaptocable actin dependent regulator of chromatin, subfamily c, member 3 (SMARCB1)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 3 (SMARCB1)   Sylvaptocable actin dependent regulator of chromatin, subfamily c, member 3 (SMARCB1)   SWI/SNF related, matrix associated actin dependent regulator of chromatin, subfamily c, member 3 (SMARCB1)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 3 (SMARCB2)   SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 3 (SMARCB2)   SW		1	AF064804	+	*	+	*		*	
Suppressor of Ty (Sc. cerevisiae) 4 homolog 1 (SUPT4H1)   Suppressor of Ty (Sc. cerevisiae) 5 homolog (SUPT6H)   Suppressor of Ty (Sc. cerevisiae) 6 homolog (SUPT6H)   Suppressor of Ty (Sc. cerevisiae) 6 homolog (SUPT6H)   Suppressor of variegation   3-9 (Drosophila) homolog 1 (SUV39H1)   Survival of motor neuron 1, tellomeric (SMN1)   SW/SNR related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 1 (SMARCA1) (non-exact, 75%)   SW/SNR related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA2)   SW/SNR related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA2)   SW/SNR related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4)   SW/SNR related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA4)   SW/SNR related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)   SW/SNR related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)   SW/SNR related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)   SW/SNR related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 1 (SMARCE1)   Synaptosomal-associated   2 AJ011915   + + + + + + + + + + + + + + + + + +		٠.		]			-	l		
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SUPT4H1    Suppressor of Ty   2   U56402		. <del>-</del>	030617		. *			l	[	
Suppressor of Ty			•	-				1		
Scerevisiae) 5 homolog   SupPT5H    SupPressor of Ty (S.cerevisiae) 6 homolog (SUPT6H)   Suppressor of Variegation   3-9 (Drosophila) homolog 1   SuV39H1)   Survival of motor neuron 1,   Suv Survival of motor neuron 1,   SuV39H1   Survival of motor neuron 1,   SuV39H1   Survival of motor neuron 1,   SuV39H1   Survival of motor neuron 1,   SuV39H1   Survival of motor neuron 1,   SuV39H1   Survival of motor neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neuron 1,   Suv Survival of neu		2	U56402	<del> </del>	+	<del>                                     </del>	<del>                                     </del>	<u> </u>	+	
Suppressor of Ty (S.cerevisiae) 6 homolog (SuPT6H)   Suppressor of variegation   3-9 (Drosophila) homolog 1 (SUV39H1)   Suppressor of variegation   1	(S.cerevisiae) 5 homolog			ļ .			'	l	1	
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SUV39H1  Survival of motor neuron 1, telomeric (SMN1)   SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 1 (SMARCA1) (non-exact, 75%)   SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2)   SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2)   SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4)   SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)   SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 1 (SMARCE)   SW/SNF related matrix associated, actin dependent regulator of chromatin, subfamily c, member 1 (SMARCE)   SW/SNF related matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1)   Synaptosomal-associated   2 AJ011915   + + + + + + + + + + + + + + + + + +		'	AFU19900	·	🕇	*	•		1	
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SWU/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 1 (SMARCA1) (non-exact, 75%) SWU/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2) SWU/SNF related, matrix 1 D26156 + + + + + + + + + + + + + + + + + + +					1					
dependent regulator of chromatin, subfamily a, member 1 (SMARCA1) (non-exact, 75%)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1) synaptobrevin-like 1 (SYBL1)  Synaptosomal-associated protein, 23kD (SNAP23)  synaptosomal-associated 2 AJ011915 + + + + + + + + + + + + + + + + + + +	SWI/SNF related, matrix	1	M88163			+	+		+	•
chromatin, subfamily a, member 1 (SMARCA1) (non-exact, 75%)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1)  synaptobrevin-like 1	associated, actin			•					l	
member 1 (SMARCÁ1) (non-exact, 75%) SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2) SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4) SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 4 (SMARCC2) SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1) synaptobrevin-like 1 (SYBL1) synaptosomal-associated protein, 23kD (SNAP23) syndecan binding protein 15 AF006638 + + + + + +	dependent regulator of				1				1	
(non-exact, 75%) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1) synaptosomal-associated protein, 23kD (SNAP23) syndecan binding protein  15 AF006638 + + + + + +			,			ļ				·
SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix 2 AF035262 B, W + + + + + + + + + + + + + + + + + +						1		1	ĺ	
associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)  SWI/SNF related, matrix 2 AF035262 B, W + + + + + + + + + + + + + + + + + +	SWI/SNF related matrix	7	1726155	<del> </del>	+-		<del>                                     </del>		├	
dependent regulator of chromatin, subfamily a, member 2 (SMARCA2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix 2 AF035262 B, W + + + + + + + + + + + + + + + + + +		-	520100		•	1				
chromatin, subfamily a, member 2 (SMARCA2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1) synaptosomal-associated 2 AJ011915 + + + + + + + + + + + + + + + + + + +			1	1 4	1		1	l		
member 2 (SMARCA2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1) synaptobrevin-like 1 (SYBL1) synaptosomal-associated protein, 23kD (SNAP23) syndecan binding protein  1 D26156 + + + + + + + + + + + + + + + + + + +	chromatin, subfamily a,				1		l			
SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4)  SWI/SNF related, matrix 4 U66616 + + + + + + + + + + + + + + + + +	member 2 (SMARCA2)		l ·		1		l .	<u></u>	L	·
dependent regulator of chromatin, subfamily a, member 4 (SMARCA4)  SWI/SNF related, matrix 4 U66616 + + + + + + + + + + + + + + + + +		1	D26156	+	+.	+	+	+	+	
chromatin, subfamily a, member 4 (SMARCA4)  SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)  SW/SNF related, matrix 2 AF035262 B, W + + + + + + + + + + + + + + + + + +				1		l		ļ.	Į.	
member 4 (SMARCA4) SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SW/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1) synaptobrevin-like 1 synaptosomal-associated protein, 23kD (SNAP23) syndecan binding protein  4 U66616 + + + + + + + + + + + + + + + + + + +	dependent regulator of			1 ·	1	ľ	1	I	1	
SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1) synaptobrevin-like 1 (SYBL1) synaptosomal-associated protein, 23kD (SNAP23) syndecan binding protein  4 U66616 + + + + + + + + + + + + + + + + + + +	member 4 (SMAPCA4)						1	1		
associated, actin dependent regulator of chromatin, subfamily c, member 2 (SMARCC2) SWI/SNF related, matrix 2 AF035262 B, W + + + + + + + + + + + + + + + + + +			USSETS	<del>  </del>	+	+	+	+	+	
dependent regulator of chromatin, subfamily c, member 2 (SMARCC2)  SWI/SNF related, matrix 2 AF035262 B, W + + + + + + + + + + + + + + + + + +		7	300.0	i '	1	i '	Ι΄.	l '	Ι΄	
chromatin, subfamily c, member 2 (SMARCC2)  SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1)  synaptobrevin-like 1 1 X95803 + + + + + + + + + + + + + + + + + + +				1	1					
SWI/SNF related, matrix 2 AF035262 B, W + + + + + + + + + + + + + + + + + +	chromatin, subfamily c.	·	· ·	l .	1	1	I	1		
associated, actin dependent regulator of chromatin, subfamily e, member 1 (SMARCE1) synaptobrevin-like 1 (SYBL1) synaptosomal-associated 2 protein, 23kD (SNAP23) syndecan binding protein 15 AF006638 + + + + + +						<u> </u>	L_	L	<u> </u>	
dependent regulator of chromatin, subfamily e, member 1 (SMARCE1) synaptobrevin-like 1 1 X95803 + + + + + + + + + + + + + + + + + + +		2	AF035262	B, W	+	+		+	+	
chromatin, subfamily e, member 1 (SMARCE1) synaptobrevin-like 1 1 X95803 + + + + + + + (SYBL1) synaptosomal-associated 2 AJ011915 + + + + + + + + + + + + + + + + + + +			ĺ	1	.[		Ι.	1	.	
member 1 (SMARCE1)	dependent regulator of			1 .	1			l	1	]
Synaptobrevin-like 1	member 1 (SMADCE1)	Ì	1	1	1			l	1	
(ŚYBL1)  synaptosomal-associated 2 AJ011915 + + + + + +  protein, 23kD (SNAP23)  syndecan binding protein 15 AF006638 + + + + + + +		<del>                                     </del>	YOUR	<del> </del>	1	-	1	1	-	
synaptosomal-associated 2 AJ011915 + + + + + + + protein, 23kD (SNAP23) syndecan binding protein 15 AF006638 + + + + + + +		'		l .	•	'	•	1	•	· .
protein, 23kD (SNAP23) syndecan binding protein 15 AF006638 + + + + + +	synaptosomal-associated	2	AJ011915	<del> </del>	+	+	+	<del> </del>	+	<del> </del>
syndecan binding protein 15 AF006638 + + + + + +		-		1	1			1		
	syndecan binding protein	15	AF006636	+.	+	+	+		+	1
(syntem) (SDODY)	(syntenin) (SDCBP)	l				L	L	<u>L_</u>	L	

								•	C1/CA00/00005
synovial sarcoma, translocated to X chromosome (SSXT)	2	X79201		+					30
syntaxin 16		AF038897	<del>                                     </del>			-		├	
syntaxin 3A (STX3A)	2	U32315		+	-	+	┡	+	
syntaxin 6 (STX6)	1	AJ002078.1	<del> </del>	<del>                                     </del>		ļ ·	├	<u> </u>	· · · · · · · · · · · · · · · · · · ·
SYNTAXIN BINDING	1	000186	<u> </u>	┼	<b> </b>	├	<u> </u>		
PROTEIN 3 (UNC-18				1		١.			
HOMOLOG 3) (UNC-18C) syntaxin-16C	-	AF008937	<u> </u>	<del> </del>	-	⊢		<u> </u>	
SYT interacting protein		AF080561		+	+	+		+	
(SIP)						L	<u> </u>		
T cell activation, increased late expression (TACTILE)	4	M88282				+			
T cell receptor V alpha gene segment V-alpha-7	- <b>R</b> .	X58744	,					ļ .	
(clone IGRa11)	· '				1				
T cell receptor V alpha	1	X58740							
gene segment V-alpha-w27	5	583390	+	+	+	+	+	+	
cofactor-1	L		·				Ľ	L	
tafazzin (cardiomyopathy, dilated 3A (X-linked);	1	X92763	+	+		+		+	
endocardial fibroelastosis					.				
2; Barth syndrome) (TAZ) TAFII100 protein (non-	1	U80191		<del>                                     </del>	<u> </u>	_	<u> </u>		
exact 53%)	<u>'</u>	000181						.	
tankyrase, TRF1- interacting ankyrin-related	1	AF082556		+	+.	+		+	
ADP-ribose polymerase					·				
(TNKS) TAP1, TAP2, LMP2, LMP7	1	X66401		ļ					
and DOB	' '	A00401						·	
TAR DNA-binding protein- 43	6 .	U23731	+	+	+	+		+	
Tat interactive protein (60kD) (TIP60)	2	U40989	+	+	+	+.	·	+	
TATA box binding protein	1	000268							
(TBP)-associated factor, RNA polymerase II, C1,									,
130kD (TAF2C1) (non-		ŀ			, ,			٠. ا	
exact, 55%) TATA box binding protein	- 4	X97999		+	+	+	+	+	·
I(TBP)-associated factor.	7	797933		*	*	*		_	. •
RNA polymerase II, F, 55kD (TAF2F)									
TATA box binding protein (TBP)-associated factor.	2	U21858		+ .	+	+	+	+	
RNA polymerase II. G.					:				
32kD (TAF2G)			·						<i>i</i>
TATA box binding protein (TBP)-associated factor.	1	D63705	+	+	+	+		+	
RNA polymerase II, I, 28kD (TAF2I)									
Tax1 (human T-cell	1	U33821		+	+	+ -	+	+	<u> </u>
leukemia virus type I) binding protein 1									
I(TAX1BP1)		<u> </u>							
T-box 2 (TBX2) (non-exact 77%)	1	U28049			+	+		+	
TBP-associated factor 172 (TAF-172)	1	AJ001017		+		+		+	
T-cell death-associated gene 8 (TDAG8)	. 1	U95218				+.			
T-cell leukemia/lymphoma 1A (TCL1A)	1	X82240	+			-	$\dashv$		
T-cell leukemia/lymphoma 1A (TCL1A) (low match)	. 1	X82240							
T-cell receptor (delta D2-	1	M22197							
J1-region) (clone K3B)									

T-cell receptor (V beta 5.1, J beta 1.5, C beta 1) (low match)	1	M97705					-		
T-cell receptor alpha delta (=M94081)	2	AE000662				$\vdash$			
T-cell receptor alpha enhancer-binding protein,	1	B39625							
short form (=X58636 Mouse LEF1 lymphoid enhancer binding factor 1								Ì	
(=D16503)) T-cell receptor delta gene	1	M22197				<u> </u>			
D2-J1-region, clone K3B T-cell receptor germline	1	M11955	<u> </u>	<u>.</u>	· -	_			
beta chain gene V-region (V) V-beta-MT1-1 1-ceii receptor germline				٠. ند			. ,		
beta-chain gene J2.1 exon  T-cell receptor germline	2	M14159 M22152	+						only in blood
delta-chain D-J region T-cell receptor interacting	2	AJ224878	•	<u> </u>		_		+	
T-cell receptor rearranged	1	M21784			<u> </u>	-			
delta-chain, V-region (V- delta 3-J) T-cell receptor, alpha	3	AE000660	+	+	+	+		+	
(V,D,J,C) (TCRA)  T-cell receptor, beta cluster		L34740		+	+	+	+	+	high in pancreas
(TCRB) T-cell receptor, delta	2	X73617		<u> </u>	+	+	-	+	
(V.D.J.C) (TCRD) T-cell, immune regulator 1 (TCIRG1)	3 -	U45285							only found in tumor
TCF-1 mRNA for T cell factor 1	1 1	X59870							·
TCF-1 mRNA for T cell factor 1 (splice form B) (low match)	1	X59870							·
T-COMPLEX PROTEIN 1, ETA SUBUNIT (TCP-1- ETA) (CCT-ETA) (HIV-1 INEF INTERACTING PROTEIN)	1	Q99832							
T-COMPLEX PROTEIN 1, THETA SUBUNIT (TCP-1- THETA) (CCT-THETA) (KIAA0002) TCR eta = T cell	1	P50990							
receptor(eta-exon)	1	S94421 X75419							
TERA	1	AC004472	· · · · · ·		·			-	
testis enhanced gene transcript (TEGT)	33	X75861	+	+	+	+	+	+	
tetracycline transporter-like protein (TETRAN) tetratricopeptide repeat	2	L11669		+	.+	+		+	
domain 1 (TTC1) tetratricopeptide repeat	1	U46570	+	+	+	+		+	
domain 2 (TTC2) tetratricopeptide repeat	<u>'</u>	U46571 D84296	<del></del>	+	+	+ +		+ +	
domain 3 (TTC3) TGFB1-induced anti-	1	D86970	+	+	+	+		+	
apoptotic factor 1 (TIAF1) thioredoxin reductase 1	3	S79851		+	+	+		+	
(TXNRD1) THIOREDOXIN- DEPENDENT PEROXIDE	1	P30048							
REDUCTASE PRECURSOR, mitochondrial (ANTI- OXIDANT PROTEIN 1) (AOP-1)									

threonyl-tRNA synthetase	1	M63180	T .	T #	1 +	1+	Т	+	1 10
(TARS)	1	Z22658		ļ		<u> </u>	<u> </u>	Ŀ	
thrombospondin 1 (THBS1)	1	X04665	<del> </del>	+	+	+	ļ.,.	L.	
thromboxane A synthase 1	1 1	M80647	<del> </del>	+	L.	+	+	+	
(platelet, cytochrome P450, subfamily V) (TBXAZ1)		IVIOU-47		•		+	+		
thymidine kinase 2, mitochondrial (TK2)	2	X76104		+	+.		+		
thymidylate kinase (CDC8)	1	L16991		++	+	+	-	+	
thymine-DNA glycosylase (TDG)	2	U51166	+	+	+	+	-	+	
Thymosin, beta 10 (TMSB10)	2	M20259	+	+.	+.	+	+	+	
thymosin, beta 4, X	,29	M17733		+	+	+		+	
thyroid autoantigen 70kD	7	J04611	<del> </del>		-			-	
(Ku antigen) (GŽ2P1) thyroid hormone receptor	1	AF016270	<u> </u>	+	ļ	-		+	
coactivating protein								. •	
thyroid hormone receptor interactor 7 (TRIP7)	2	L40357		+	+	+		+	·
thyroid hormone receptor interactor 8r (TRIP8)	4	L40411		+					
thyroid hormone receptor- associated protein, 230	1	D83783		1-	<del>                                     </del>	-			
kDa subunit (TRAP230)		·			١.		ĺ	·	
thyroid receptor interacting protein 15 (TRIP15)	2	L40388	+	+	+	+		-	
TI-227H	. 1	D50525	<del> </del>	-		-			· ·
TIA1 cytotoxic granule-	1	M77142		+	+	+	┝╌┤	+	
associated RNA-binding protein (TIA1)		· ·	·	l					· .
tissue inhibitor of	1	X02598	<del>                                     </del>	+	+	+	+	+	
metalloproteinase 1 (erythroid potentiating		1.0200		'				•	
activity, collagenase inhibitor) (TIMP1)									·
tissue inhibitor of metalloproteinase 2 (TIMP2)	1	M32304	+	+	+	+		+	high in placenta
tissue specific	1	U58766	+	+	+	+		+	
transplantation antigen P35B (TSTA3)				-					·
titin (TTN)	1	X64697	+	+	+	+		+	high in muscle
TNF receptor-associated factor 2 (TRAF2)	1	U12597		+	+	+	•	+	· · · · · · · · · · · · · · · · · · ·
TNF receptor-associated	1	AF110908.1	_	+	_ :		<u> </u>		
factor 3 (TRAF3) TNF receptor-associated	1	U78798		· ·			_		
factor 6 (TRAF6) (low match)	,	0,0,00							
toll-like receptor 1 (TLR1)	1	U88540				+		-	
toll-like receptor 2 (TLR2)	1	U88878	+	+		+	-	+	
toll-like receptor 4 (TLR4)	1	U88880		+			+		<del></del>
toll-like receptor 5 (TILR5)	1	AF051151		+	-1	+	_	$\dashv$	
topoisomerase (DNA) I (TOP1)	1	J03250		+	+	+			
topoisomerase (DNA) II beta (180kD) (TOP2B)	2	X68060	+	+	+	+		+	· · · · · · · · · · · · · · · · · · ·
topoisomerase (DNA) III beta (TOP3B)	3	D87012	+				1	$\dashv$	
TR3beta	1	D85245		+		$\dashv$	-+		
TRAF family member-	3	U63830	+	+	+	+	+	+	
associated NF-kB activator (TANK)							_	_	
TRANSALDOLASE	1	P37837							
transaldolase 1 (TALDO1)	4	L19437		+	+	+	+	+	· ·

transaldolase-related	1	AF010398	1	T		T	<u> </u>		. 6
protein transcobalamin II (TCII)	1	AF047576	· · · · · · · · · · · · · · · · · · ·	-		-	-	<u> </u>	
transcription elongation factor B (SIII), polypeptide 1-like (TCEB1L)	2	Z47087	+	+	+	+		+	
transcription elongation factor B (SIII), polypeptide 3 (110kD, elongin A) (TCEB3)	1	L47345	+	+	+	+	+	+	
transcription factor 12 (HTF4, helix-loop-helix transcription factors 4) (TCF12)	1	M83233	+	+	+	+		+	
transcription factor 17	2	D89928		+		+	-		
transcription factor 4 (TCR4)	2	X52079		+	+	+	$\vdash$	+	
transcription factor 6-like 1 (mitochondrial transcription factor 1-like) (TCF6L1)	2	M62810	+	+	+	+			
transcription factor 7-like 2 (T-cell specific, HMG-box) (TCF7L2)		Y11306		+	+	+		+	
transcription factor binding to IGHM enhancer 3 (TFE3	1	X96717	+	+	+	+		+	
transcription factor IL-4 Stat	7.	AF067575	+	+	. +	+	+	+	
transcription factor IL-4 Stat (low match)	. 1	U16031							
transcription factor ISGF-3 (=M97936)	4	M97935			,				
transcription factor REST	1	A56138							**************************************
transcription factor TFIID	1	Z22828							
transcriptional adaptor 2 (ADA2, yeast, homolog)- like (TADA2L)	1	AF064094							
transcriptional intermediary factor 1 (TIF1) (non-exact 72%)	1	AF009353					·		
transducin (beta)-like 1 (TBL1)	1	Y12781	+	+	+	+		+	·
transducin-like enhancer of split 3, homolog of Drosophila E(sp1) (TLE3)	1	M99438	. +	+					
Transformation/transcription domain-associated protein (TRRAP)	1	AF076974	+	+	+1	+		+	
transformation-sensitive, similar to Saccharomyces cerevisiae STI1 (STI1L)	2	M86752		+	+	+		+	
transforming growth factor beta-activated kinase 1 (TAK1) (non-exact 78%)	1	AB009356							
transforming growth factor beta-stimulated protein TSC-22 (TSC22)	3	AJ222700	+	+	+	+		+	
transforming growth factor, beta receptor III (betaglycan, 300kD)	1	L07594		+	+	+		+	
(TGFBR3) transforming growth factor, beta-induced, 68kD	2	4507466	+	+	+	+	+	+	
(TGFBI)	2	Q15582				_			
GROWTH FACTOR-BETA INDUCED PROTEIN IG-H3 PRECURSOR (BETA IG- H3)	-	Q 10002							
transforming, acidic coiled- coil containing protein 1 (TACC1) (non-exact 70%)	1	AF049910							

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									,
transgelin 2 (TAGLN2)	14	D21261	+	+.	+	+	+	+	f
transgelin 2 (TAGLN2) (non-exact)	.1	D21261						·-	
trans-Golgi network protein (46, 48, 51kD isoforms) (TGN51)	2	AF029316		+		+			
transient receptor potential channel 1 (TRPC1)	1.	X89066		+	+	+		+	
transketolase (Wernicke- Korsakoff syndrome) (TKT)	. 7	L12711		+	+.	+		+	
translation factor sui1 homolog (GC20)	<b>1</b> ·	AF064607		+	+	+	+	+	
translin (TSN)	3	X78627	+	+	+	+		+	
translin-associated factor X (TSNAX)	1	X95073		+	+	+		+	
transmembrane glycoprotein (A33)	_ 1	U79725			·				
transmembrane protein (63kD), endoplasmic	1	X69910	+	+	+	+		+	
reticulum/Golgi intermediate compartment (P63)									
transmembrane protein 1 (TMEM2)	1	AB001523		+		+		+	
TRANSMEMBRANE PROTEIN SEX PRECURSOR (non-exact	1	P51805							
65%) transmembrane trafficking	2	X97442	+	+	+	+	+	+	
protein (TMP21) transporter 1, ABC (ATP	3	L21208	+	+	+	+	$\vdash$	+	
binding cassette) (TAP1) Treacher Collins-	·	1140947	····	1				+	high in many libraries
Franceschetti syndrome 1 (TCOF1)	2	U40847	+	+	+	+		Ť	nigh in many libraries
triosephosphate isomerase 1 (TPI1)	2	X69723	+	+	+	+	+	+	
tropomyosin	2	X04201		+	+	+		+	
tropomyosin 4 (TPM4)	2	X05276	+	+	+	+		+	
TRPM-2 protein	2	M63376							
tryptase I precursor (non- exact 64%)(=P20231)	1	A35863							
tryptophan rich basic protein (WRB)	1	Y12478							
tryptophanyl-tRNA synthetase (WARS)	1	X59892	+	+	+	+	+	+	
Ts translation elongation factor, mitochondrial (TSFM)	1	L37936	+	+		+		+	
ttopoisomerase (DNA) II beta (180kD)	1.	Z15115		+	+			+	
Tu translation elongation factor, mitochondrial (TUFM)	4	L38995							
tuberous scierosis 1 (TSC1)	1	AF013168		+	+	+		+	
tuberous scierosis 2 (TSC2)	1	X75621	·	+	+	+		+	
tubulin, alpha 1 (testis specific) (TUBA1)	, 1	X06956		+			+		<u>:</u>
tubulin, alpha, ubiquitous (K-ALPHA-1)	11	K00558	+	+	+	+	+	+	high in many libraries
tubulin, alpha, ubiquitous (K-ALPHA-1) (low match)	1	K00558							
tubulin-specific chaperone c (TBCC)		U61234		+	+	+		+	
tumor necrosis factor (ligand) superfamily, member 10 (TNFSF10)	7	U37518		+	+	+		+	

((i)gand) superfamily,   member 12 (TNFSF13)								-		•
((i)gand) superfamily, member 14 (FINFSF14) tumor necrosis factor (i)gand) superfamily, member 6 (TNFSF14) tumor necrosis factor (i)gand) superfamily, member 8 (TNFSF8) tumor necrosis factor (i)gand) superfamily, member 8 (TNFSF8) tumor necrosis factor in the factor of interest	tumor necrosis factor (ligand) superfamily, member 13 (TNFSF13)	1	AF046888	+	+		+		+	
((i)gand) superfamily,	tumor necrosis factor (ligand) superfamily, member 14 (TNFSF14)	•	AF036581							
tumor necrosis factor (igland) superfamily, member 8 (TNFSF8) (more necrosis factor alpha-inducible callular neceptor superfamily per neceptor superfamily per neceptor superfamily per neceptor superfamily nember 10 (TNFSF810) (more necrosis factor receptor superfamily nember 10 (TNFSF810) (more necrosis factor receptor superfamily nember 10 (TNFSF810) (more necrosis factor receptor superfamily, member 10 (TNFSF810) (more necrosis factor receptor superfamily, member 10 (the necrosis factor receptor superf	tumor necrosis factor (ligand) superfamily, member 6 (TNFSF6)	1	D38122	+				-		
alpha-inducible cellular protein containing leucine zipoer domains (FIP2) tumor necrosis factor receptor superfamily member 7 (FINRS 7) tumor necrosis factor receptor superfamily member 10b (FINRS 7) tumor necrosis factor receptor superfamily member 10b (FINRS 7) tumor necrosis factor receptor superfamily member 10b (FINRS 7) tumor necrosis factor receptor superfamily member 10b (FINRS 7) tumor necrosis factor receptor superfamily member 10b (FINRS 710b) tumor necrosis factor receptor superfamily member 10b (FINRS 710b) (non-exact 84%) tumor necrosis factor receptor superfamily member 12b (FINRS 712b) tumor necrosis factor receptor superfamily, member 11b (FINRS 712b) tumor necrosis factor receptor superfamily, member 14b (herpesvirus entry mediator) (FINRS 712b) tumor necrosis factor receptor superfamily, member 14b (herpesvirus entry mediator) (FINRS 714b) tumor necrosis factor receptor superfamily, member 14b (herpesvirus entry mediator) (FINRS 714b) tumor necrosis factor receptor superfamily, member 17b (FINRS 71b) tumor necrosis factor receptor superfamily, member 17b (FINRS 71b) tumor necrosis factor receptor superfamily, member 17b (FINRS 71b) tumor necrosis factor receptor superfamily, member 17b (FINRS 71b) tumor necrosis factor receptor superfamily, member 17b (FINRS 71b) tumor necrosis factor receptor superfamily, member 17b (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis factor receptor superfamily (FINRS 71b) tumor necrosis f	tumor necrosis factor (ligand) superfamily, member 8 (TNFSF8)	1	L09753	B only			-			
receptor superfamily member 7 (TNFRSF1) tumor necrosis factor receptor superfamily, member 10b (NFRSF10B) tumor necrosis factor receptor superfamily, member 10b (NFRSF10B) tumor necrosis factor receptor superfamily, member 10b (Acecy without an intracellular domain (NFRSF10B) tumor necrosis factor receptor superfamily, member 10d, decoy with truncated death domain (NFRSF10D) (non-exact 84%) tomain (NFRSF10D) (non-exact 84%) tomain (NFRSF10B) tumor necrosis factor receptor superfamily, member 12 (Iranslocating and the protein) (TNFRSF10B) tumor necrosis factor receptor superfamily, member 14 (NFRSF12) tumor necrosis factor receptor superfamily, member 18 (TNFRSF18) tumor necrosis factor receptor superfamily, member 18 (TNFRSF18) tumor necrosis factor receptor superfamily, member 18 (TNFRSF18) tumor necrosis factor to the protein of the	tumor necrosis factor alpha-inducible cellular protein containing leucine zipper domains (FIP2)	1	AF061034		+	+	+		+	
receptor superfamily, member 10C, decoy without an intracellular domain (TNFRSF10D) umor necrosis factor receptor superfamily, member 10C, decoy without an intracellular domain (TNFRSF10C) umor necrosis factor receptor superfamily, member 10C, decoy with truncated death domain (TNFRSF10D) (non-exact 84%) lumor necrosis factor receptor superfamily, member 10C, first special social social sector receptor superfamily, member 10C, first special social sector receptor superfamily, member 10C, first special social sector receptor superfamily, member 11C, first special social sector receptor superfamily, member 11C, first special special sector receptor superfamily, member 11C, first special	l umor necrosis factor receptor superfamily member 7 (TNFRSF7)	2	M63928		+			+		
receptor superfamily, member 10c, decoy without an intracellular domain (TNFRSF10C) tumor necrosis factor receptor superfamily, member 10d, decoy with truncated death domain (TNFRSF10D) (non-excal 84%) tumor necrosis factor receptor superfamily, member 12 (translocating chain-association nembrace) (TNFRSF10D) (non-excal 84%) tumor necrosis factor receptor superfamily, member 12 (translocating chain-association nembrace) (TNFRSF10D) (non-excal 84%) tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator) (TNFRSF18) (tumor necrosis factor receptor superfamily, member 16 (TNFRSF1B) (tumor necrosis factor receptor superfamily, member 16 (TNFRSF1B) (tumor necrosis factor receptor superfamily, member 6 (TNFRSF6) (tumor necrosis factor receptor superfamily, member 6 (TNFRSF7) (tumor necrosis factor receptor superfamily, member 7 (TNFRSF7) (tumor necrosis factor, alpha-induced protein 3 (TNFAIP3) (tumor necrosis factor, alpha-induced protein 3 (TNFAIP3) (tumor necrosis factor, alpha-induced protein 3 (TNFAIP3) (tumor protein p53-binding protein, 1 (TP53BPL) (tumor protein p53-binding protein, 1 (TP53BPL) (tumor protein, 1 (TP53BPL) (tumor protein, 35 (TNFAIP3) (tumor p	tumor necrosis factor receptor superfamily, member 10b (TNFRSF10B)	1	AF016266		+	+	+	+	+	
iumor necrosis factor receptor superfamily, member 10d, decoy with truncated death domain (TNFRSF10D) (non-exact 84%)	receptor superfamily, member 10c, decoy without an intracellular domain	3	AF012629					+		
(non-exicit 84%) tumor necrosis factor receptor superfamily, member 12 (translocating chain-association membrane protein) (TNFRSF12) tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator) (TNFRSF14) tumor necrosis factor receptor superfamily, member 18 (TNFRSF18) tumor necrosis factor receptor superfamily, member 18 (TNFRSF18) tumor necrosis factor receptor superfamily, member 6 (TNFRSF6) tumor necrosis factor receptor superfamily, member 7 (TNFRSF7) tumor necrosis factor receptor superfamily, member 7 (TNFRSF7) tumor necrosis factor alpha-induced protein 2 (TNFAIP3) tumor necrosis factor, alpha-induced protein 3 (TNFAIP3) tumor protein 53-binding protein, 15-binding protein, 17 (TPS3BP1) tumor protein p53 (Li- Fraumeni syndrome) (TPS3BPL) tumor protein p53-binding protein, 17 (TPS3BPL) tumor protein, 18 (TPT3) tumor protein, 35 (X16064) translationally-controlled 1 timor protein, 18 (TPT1) tumor protein, 19 (TPS1B7) tumor protein, 19 (TPS1B7) tumor protein, 17 (TPS1B7) tumor protein, 17 (TPS1B7) tumor protein, 18 (TPT1) tumor protein, 19 (TPS1B7) tumor protein, 19 (TPS1B7) tumor protein, 19 (TPS1B7) tumor protein, 19 (TPS1B7) tumor protein, 19 (TPS1B7) tumor protein antigen 9 (TS1B7)	tumor necrosis factor receptor superfamily, member 10d, decoy with truncated death	1	AF023849							found only in prostate
member 12 (translocating chain-association membrane protein) (INFRSF12) (INFRSF12) (INFRSF14) (INFRSF14) (INFRSF14) (INFRSF14) (INFRSF14) (Infresting and in	(non-exact 84%) tumor necrosis factor	1	U94508	+	+	+	+		+	
tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator) (TNFRSF14) (tumor necrosis factor receptor superfamily, member 18 (TNFRSF18) (tumor necrosis factor receptor superfamily, member 18 (TNFRSF18) (tumor necrosis factor receptor superfamily, member 6 (TNFRSF6) (tumor necrosis factor receptor superfamily, member 6 (TNFRSF7) (tumor necrosis factor receptor superfamily, member 7 (TNFRSF7) (tumor necrosis factor, alpha-induced protein 2 (TNFAIP2) (tumor necrosis factor, alpha-induced protein 3 (TNFAIP3) (tumor protein 53-binding protein, 17 (TP53BP1) (tumor protein 53-binding protein, 17 (TP53BPL) (tumor protein p53-binding protein, 17 (TP53BPL) (tumor protein, 17 (TP53BPL) (translationally-controlled 1 (TPT1) (tow score) (tumor protein, 17 (TPT1) (tow score) (tumor protein, 17 (TPT1) (tow score) (tumor protein, 17 (TPT1) (tow score) (tumor protein, 17 (TP51) (tumor protein, 17 (TPT1) (tow score) (tumor protein, 17 (TPT1) (tow score) (tumor protein, 17 (TPT1) (tow score) (tumor protein, 17 (TPT1) (tow score) (tumor protein, 17 (TPT1) (tumor protein, 17 (TPT1) (tow score) (tumor protein, 17 (TPT1) (tow score) (tumor protein, 17 (TPT1) (tumor prot	member 12 (translocating chain-association membrane protein)									
tumor necrosis factor receptor superfamily, member 18 (TNFRSF1B) tumor necrosis factor receptor superfamily, member 18 (TNFRSF6) tumor necrosis factor receptor superfamily, member 6 (TNFRSF6) tumor necrosis factor receptor superfamily, member 7 (TNFRSF7) tumor necrosis factor, alpha-induced protein 2 (TNFAIP2) tumor necrosis factor, alpha-induced protein 3 (TNFAIP3) tumor protein 53-binding protein, 1 (TP53BP1) tumor protein p53 (LI- fraumeni syndrome) (TP53BPL) tumor protein p53-binding protein (TP53BPL) tumor protein, 1 (TP53BPL) tumor protein, 23-binding protein (TP53BPL) tumor protein, 35 tumor protein, 1 (TP53BPL) tumor protein,	tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator)	1	U70321	+	+	+	+		+	
tumor necrosis factor receptor superfamily, member 6 (TNFRSF6) tumor necrosis factor receptor superfamily, member 7 (TNFRSF7) tumor necrosis factor, alpha-induced protein 2 (TNFAIP2) tumor necrosis factor, alpha-induced protein 3 (TNFAIP3) tumor protein 53-binding protein, 1 (TP53BP1) tumor protein p53 (Li- fraumeni syndrome) (TP53) Tumor protein, p53-binding protein, 1 (TP53BPL) tumor protein, translationally-controlled 1 (TPT1) tumor protein, translationally-controlled 1 (TPT1) (low score) tumor proteion p53 (Li- fraumariationally-controlled 1 (TPT1) (low score) tumor protein, translationally-controlled 1 (TPT1) (low score) tumor proteion p53 (Li- fraumariationally-controlled 1 (TPT1) (low score) tumor protein, translationally-controlled 1 (TPT1) (low score)	tumor necrosis factor	5	U52165	+	+	+ .	+		+	
receptor superfamily, member 7 (TNFRSF7) tumor necrosis factor, alpha-induced protein 2 (TNFAIP2) tumor necrosis factor, alpha-induced protein 3 (TNFAIP3) tumor protein 53-binding protein, 1 (TP53BP1) tumor protein p53 (Li- Fraumeni syndrome) (TP53) Tumor protein p53-binding protein (TP53BPL) tumor protein (TP53BPL) tumor protein (TP53BPL) tumor protein, as a superfamily tumor protein, tumor p	tumor necrosis factor receptor superfamily, member 6 (TNFRSF6)	1	X63717	B, W					+	
alpha-induced protein 2 (TNFAIP2) (tumor necrosis factor, alpha-induced protein 3 (TNFAIP3) (tumor protein 53-binding protein, 1 (TP53BP1) (tumor protein p53 (Li-	tumor necrosis factor receptor superfamily, member 7 (TNFRSF7)	1	M63928	+	+					
alpha-induced protein 3 (TNFAIP3)  tumor protein 53-binding protein, 1 (TP53BP1)  tumor protein p53 (Li- Fraumeni syndrome) (TP53)  Tumor protein p53-binding protein (TP53BPL)  tumor protein, translationally-controlled 1 (TPT1)  tumor protein, translationally-controlled 1 (TPT1) (low score)  tumor rejection antigen 9 X15187 + + + + + + + + + + + + + + + + + + +	tumor necrosis factor, alpha-induced protein 2 (TNFAIP2)				+	+		+		
protein, 1 (TP53BP1) Tumor protein p53 (Li- Fraumeni syndrome) (TP53) Tumor protein p53-binding 1 U82939 + + + + + protein (TP53BPL) Tumor protein, 35 X16064 Translationally-controlled 1 (TPT1) Tumor protein, 1 X16064 Translationally-controlled 1 (TPT1) (low score) Tumor rejection antigen 9 X15187 + + + + + + +	alpha-induced protein 3 (TNFAIP3)			·						
Fraumeni syndrome) (TP53)  Tumor protein p53-binding protein (TP53BPL)  tumor protein, translationally-controlled 1 (TPT1)  tumor protein, translationally-controlled 1 (TPT1) (low score)  tumor rejection antigen 9 X15187 + + + + + + + + + + + + + + + + + + +	protein, 1 (TP53BP1)				+	+	+	·	+	·
protein (TP53BPL) tumor protein, translationally-controlled 1 (TPT1) tumor protein, translationally-controlled 1 (TPT1) (low score) tumor rejection antigen 9 X15187 + + + + + + +	Fraumeni syndrome) (TP53)		·	+	+.				+	·
translationally-controlled 1 (TPT1)  lumor protein, translationally-controlled 1 (TPT1) (low score)  lumor rejection antigen 9 X15187 + + + + + + +	protein (TP53BPL)			+			+		+	
translationally-controlled 1 (TPT1) (low score) (lumor rejection antigen 9 X15187 + + + + + +	translationally-controlled 1 (TPT1)									·
	translationally-controlled 1 (TPT1) (low score)									
Marrie Control	tumor rejection antigen (gp96) 1 (TRA1)	9	X15187	+:	+	+	+	+	+	

									-1.0.1.00.000
tumorous imaginal discs (Drosophila) homolog (TID1)	. 2	AF061749		1					
TXK tyrosine kinase (TXK)	2	L27071	<del> </del>		1	+	-	╁	
type II integral membrane	1	AJ001685		+-		+	+	╀	found only in feta
protein (NKG2-E) TYRO protein tyrosine		X FOADERD	• •	ŀ	L		_		liver/spleen
kinase binding protein (TYROBP)	3	AF019562		-	+				
tyrosine 3-	1	X57346	+	+	+	+		+	high in ecnorm
monooxygenase/tryptopha n 5-monooxygenase									
activation protein, beta polypeptide (YWHAB)			ľ					1	
tyrosine 3-	1	M86400		╁	<del> </del>		-	├-	
monooxygenase/tryptophan 5-monooxygenase		•				].		l	
activation protein, zeta									
polypeptide ( YWHAZ)					ļ		١.	ļ	
tyrosine 3-	1 .	M86400		t	<u> </u>	<del>                                     </del>	1		
monooxygenase/tryptopha in 5-monooxygenase			]		}				
activation protein, zeta polypeptide (YWHAZ)									
Tyrosine kinase 2 (TYK2)	3	X54637	· · · · · · · · · · · · · · · · · · ·	+	+	+	-	+	
TYROSINE-PROTEIN	2	P43403	<del></del>	-	<del></del>	<u> </u>	$\vdash$	<u> </u>	<del> </del>
KINASE ZAP-70 (70 KD ZETA-ASSOCIATED									
PROTEIN) (SYK-RELATED TYROSINE KINASE)									
tyrosyl-tRNA synthetase (YARS)	1	U89436	+	+	+	+	_	+	
U1 small nuclear RNA	1	M14387		ļ			<u> </u>	_	
U19H snoRNA (=M634R5		AJ224166		<b> </b> -			_	_	<u> </u>
IR.norvegicus matrin 3)									
U2(RNU2) small nuclear RNA auxillary factor 1	1	M96982		+	+	+		+	
(non-standard symbol) (U2AF1)		•							
U22 snoRNA host gene (UHG)	2	U40580					·		
U4/U6-associated RNA	4	AF016370		+	+	+		+	
splicing factor (HPRP3P) U49 small nuclear RNA		X96649						<u> </u>	
U5 snRNP-specific protein	- 1	AB007510	+	+	+	+	_	+	
(220 kD), ortholog of S. Icerevisiae Pro8p (PRP8)						·			
U5 snRNP-specific protein, 116 kD (U5-116KD)	4	D21163	+	+	+	+		+	
U5 snRNP-specific protein,	3	Z70200		•				-	
200 kDa (DEXH RNA  helicase family) (U5-200-			-						
(KD)		· ·							
Uba80 mRNA for ubiquitin	4	S79522	+	+	+	+	+	+	high in ovary
ubiquinol-cytochrome c reductase (6.4kD) subunit	1	D55636	+	+	+	+	+	+	high in fetal lung
(UQCR)		<u> </u>							
UBIQUÍNOL- CYTOCHROME C	1	P47985							
REDUCTASE IRON-	1				l	•	.		
SULFUR SUBUNIT PRECURSOR (RIESKE						. [			
IRON-SULFUR PROTEIN) I						• ]			
(RISP) (low match)		VERRE			]		ان		·
ubiquitin A-52 residue ribosomal protein fusion	2	X56999	•						
product 1 (UBA52)		<u> </u>			.				
ubiquitin activating enzyme E1-like protein (GSA7)	1	AF094516		+	+			+	
ubiquitin C (UBC)	5	AB009010		+	+	+	+	+	high in ovary
				لـنــ					IIIAII III OAGIĀ

								_	
ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) (UCHL3)	1	M30496	.+	+	Ŧ	+		1+	
ubiquitin fusion degradation 1-like (UFD1L)		U64444	+	+	+	+	$\dagger$	+	
ubiquitin protein ligase E3A (human papilloma virus E6- associated protein, Angelman syndrome)	1	U84404	В	+	+		1	+	
(UBE3A)  ubiquitin specific protease									٠.
10 (USP10)  ubiquitin specific protease	4	D80012	+	+	+	+		+	
11 (USP11)  ubiquitin specific protease	3	U44839	+	+	+	+	+	+	
15 (USP15)	3	AB011101	+	+	+	+		+	,
19 (USP19)  ubiquitin specific protease		AB020698		+					
4 (proto-oncogene) (USP4) ubiquitin specific protease	1.	AF017305	В	+	+		+	+	·
4 (proto-oncogene) (USP4) (non-exact, 66%) ubiquitin specific protease		AF017306							
7 (herpes virus-associated) (USP7)	. 1	272499		+	+	+		+	
ubiquitin specific protease 8 (USP8)	5	D29956		+	+	+	Γ	+	
UBIQUITIN-ACTIVATING ENZYME E1 (A1S9 PROTEIN) (56%)		P22314							
ubiquitin-activating enzyme E1 (A1S9T and BN75 temperature sensitivity	1	M58028	+	+	+	+	1	+	
complementing) (UBE1) ubiquitin-activating enzyme	1	L34170	+	+		+	_	+	
E1, like (UBE1L) UBIQUITIN-BINDING PROTEIN P62:	1	U41806	`		+	-	+		
phosphotyrosine independent ligand for the Lck SH2 domain p62 (P62)									
ubiquitin-conjugating enzyme E2 variant 1 (UBE2V1)	2	U49278	+	+	+	+	+	+	
ubiquitin-conjugating enzyme E2 variant 2 (UBE2V2)	1	X98091							
UBIQUITIN- CONJUGATING ENZYME E2-17 KD (UBIQUITIN- PROTEIN LIGASE)	1	Q16781							
ubiquitin-conjugating enzyme E2B (RAD6 homolog) (UBE2B)	1 .	M74525	+	+	+	+		+	
ubiquitin-conjugating enzyme E2G 2 (homologous to yeast UBC7) (UBE2G2)	1	AF032456	+	+	+	+		+	
ubiquitin-conjugating enzyme E2H (homologous to yeast UBC8) (UBE2H)	1	Z29328	+	+	+	+		+	
ubiquitin-conjugating enzyme E2L 1 (UBE2L1)	1	X92962		+	+	$\vdash$		+	
ubiquitin-conjugating enzyme E2L 3 (UBE2L3)	3	AJ000519		+	+	+		+	
ubiquitin-conjugating enzyme E2L 6 (UBE2L6)	4	AF031141		+	+	+	7	+	
ubiquitin-like 1 (sentrin) (UBL1)	2	U61397	+	+	+	+		+	
		<u></u>				ш			

		•						•	C1/CA00/00003
UDP-N-acetyl-alpha-D- galactosamine:polypeptide N-	2	X85019						Ī.	
acetylgalactosaminyltransf erase 2 (GalNAc-T2)									
(GALNT2) UDP-N-acetyl-alpha-D-	<u> </u>		<u> </u>		<u> </u>	<u>L</u>	<u> </u>	<u> </u>	
galactosamine:polypeptide	1	X92689							
acetylgalactosaminyltransf erase 3									
(GalNAc-T3) (GALNT3) (non-exact 65%)			ļ.						
unactive progesterone receptor, 23 Kd (P23)	2	L24804		+	+	+		+	
unconventional myosin-ID (MYO1F)	3	U57053			:				
uncoupling protein homolog (UCPH)	1	U94592					-		
uncoupling protein homolog (UCPH) (low match 67%)	1	U94592					,		
Unknown gene product	1	AC002310				_			
unknown mRNA (clone 24514)	1	AF070542						<u> </u>	
unknown protein (clone ICRFp507L0677)	2	Z70223							
unknown protein (Hs.93832)	1	AF070626	. +	+.	+	+	+	+	
unknown protein IT14	1	AF040966			-				
uppressor of Ty (S.cerevisiae) 6 homolog	1	D79984	+	+	+	+	+	+	
upregulated by 1,25- dihydroxyvitamin D-3 (VDUP1)	74	S73591	+	+	+	7 <b>4</b> s		+	high in heart
upregulated by 1,25- dihydroxyvitamin D-3 (VDUP1) (low match)	1	S73591							
upregulated by 1,25- dihydroxyvitamin D-3 (VDUP1) (low match)	. <b>1</b>	S73591							
upregulated by 1,25- dihydroxyvitamin D-3 (VDUP1) (low score)	1	S73591			• •				
upstream binding factor (hUBF)	1	X53461	+	+		+		+	
UV radiation resistance associated gene (UVRAG)	2	X99050		+	+	+		+	
vacuolar proton-ATPase, subunit D; V-ATPase, subunit D (ATP6DV)	4	X71490		+	.+	+	+	+	
v-akt murine thymoma viral oncogene homolog 1 (AKT1)	1	M63167	+	+	+	+		+	
Vanin 2 (VNN2)	3	AJ132100				-	$\dashv$		
vasodilator-stimulated phosphoprotein (VASP)	3	Z46389	+ .		+	+	$\dashv$	+	
vav 1 oncogene (VAV1)	1	M59834				$\dashv$	$\dashv$	+	• •
vav 2 oncogene (VAV2)	1	S76992	+	+		-	$\dashv$		· · · · · · · · · · · · · · · · · · ·
v-crk avian sarcoma virus CT10 oncogene homolog (CRK)	1	D10656	W	+	+	1	+		
v-erb-b2 avian erythroblastic leukemia	1	M29366		.		-+	ᄀ	+	
viral oncogene homolog 3 (ERBB3)									
VERSICAN CORE PROTEIN PRECURSOR	1	P13611		-		$\dashv$	$\dashv$	$\dashv$	
Vesicle-associated membrane protein 1 (synaptobrevin 1) (VAMP1)	1	M36196		+	+.	+	1	+	
(-) Proproduit 1) (AVIAIL 1)									

	icle-associated							r	.1/CA00/00005
vesicle-associated membrane protein 3 (cellubrevin) (VAMP3)	1	U64520							
v-fos FBJ murine osteosarcoma viral oncogene homolog (FOS)	26	K00650	-	+	+	+	+	+	high in aorta
v-fos FBJ murine osteosarcoma viral oncogene homolog (FOS) (low match)	1	K00650							
villin 2 (ezrin) (VIL2)	1	X51521	+	+	+	+	$\vdash$	+	
villin-like protein	1 :	D88154		<del>                                     </del>	<u> </u>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	
vimentin (VIM)	12	X56134		+	+	+	+	+	high in many libraries
vinculin (VCL)	4	. M33308	<del></del> -	+	+	+		+	
uitamia Aம்ம்ponsive; cytoskeleton related (JWA)	1-1/6	AF070525		+	+	+		+	
v-jun avian sarcoma virus 17 oncogene homolog (JUN)	2	U65928	+	+	+	+		+	
v-myb avian myeloblastosis viral oncogene homolog (MYB)	1	M15024			.+.		+		
voltage-dependent anion channel 1 (VDAC1)	. 1	L06132	+	+	.+	+		+	
voltage-dependent anion channel 3 (VDAC3)	4	U90943		+	+	+	-	+	
von Hippel-Lindau syndrome (VHL)	1	L15409		+	+	+	·	+	
von Willebrand factor (vWF) (low matched)	1	X06828					,		
v-raf murine sarcoma 3611 viral oncogene homolog 1 (ARAF1)	2	L24038	+	+	+	+			,
v-raf-1 murine leukemia viral oncogene homolog 1 (RAF1)	1	X03484	+	+	+	+		+	
v-ral simian leukemia viral oncogene homolog B (ras related; GTP binding protein) (RALB)	. 3	M35416							
V-rel avian reticuloendotheliosis viral oncogene homolog A (nuclear factor of kappa light polypeptide gene enhancer in B-cells 3 (p65)) (RELA)	1	L19067		+	+	+		+	
v-yes-1 Yamaguchi sarcoma viral related	2	M16038	+	+		+		+	
oncogene homolog (LYN) WD repeat domain 1 (WDR1)	1	AB010427	+	+	+	+	+	+	
WDR1 (=AF020260)	7	AF020056			_				· · · · · · · · · · · · · · · · · · ·
WD-repeat protein (HAN11)	2	U94747		+	+	$\dashv$	-	+	
Williams-Beuren syndrome chromosome region 1 (WBSCR1)	12	AF045555	+	+	+	+	+	+	
Wiskott-Aldrich syndrome protein interacting protein (WASPIP)	4	X86019	+	+	+			+	
X (inactive)-specific transcript (XIST)	2	M97168		7		$\dashv$			
xeroderma pigmentosum, complementation group C (XPC)	3	D21089	+	+	+	+			- · · · · · · · · · · · · · · · · · · ·
						- 1		1	1
l P	2	X99699		$\neg \neg$		+		П	
XIAP associated factor-1 XIB X-linked anhidroitic	2	X9969 <b>9</b> X90392		+	+	+	+	+	

WO 00/40749 PCT/CA00/00005

									C1/CA00/00003
X-ray repair complementing defective	1	M30938	T . +	+	+	+		+	high in spleen
repair in Chinese hamster	l · .		1	1					
cells 5 (double-strand-				1.				1	,
break rejoining; Ku autoantigen,				1	'	1		1	
80kD) (XRCC5)	1	:				l	•	1	
XRP2 protein	1	. AJ007590		<del>                                     </del>		1	$\vdash$	+-	<del> </del>
yeloid differentiation	1 1	U84408	<del> </del>	+	+	+	╁	+	
primary response gene			-					1	
(88) (MYD88) zeta-chain (TCR)	1	L05148	+		-	ļ.,	<u> </u>	↓_	
associated protein kinase	'	LU3146	· · · ·			+		١.	
(70kD) (ZAP70)	1					'	1	1	
zeta-chain (TCR) associated protein kinase	1	L05148						1	
(70kD) (ZAP70) (low	Í		}		1.		ļ	Į	
match)	1			1				1	
zinc finger protein	2	U69274	+	+	+	+	1	+	
(Hs.47371) zinc finger protein	<del></del>	U69645	ļ <u>.</u>	ļ.,	<b>└</b>	<u> </u>	<u> </u>	ــــــــــــــــــــــــــــــــــــــ	·
(Hs.78765)	'	009045	+	+	+	+	1	+	
zinc finger protein 10 (KOX	. 1	X78933	<del>                                     </del>	1			<del>                                     </del>	$\vdash$	+ only
1) (ZNF10) ZINC FINGER PROTEIN	<del></del>				<u> </u>		L	L	
124 (HZF-16) (non-exact	1	Q15973				ļ			
<b> 51%)</b>				1		l	İ	1	
zinc finger protein 124	1	S54641	,	<del>                                     </del>		t		<del>                                     </del>	
(HZF-16) (ZNF124) (non- exact, 78%)	[			1		Į			,
ZINC FINGER PROTEIN	<del>                                     </del>	P52736	<del> </del>	├		<del>                                     </del>	<del> </del>	├	
133	L	]					İ	Ι.	
zinc finger protein 136	1	U09367			+	+			<del></del>
(clone pHZ-20) (ZNF136) zinc finger protein 140	1-	U09368	<u> </u>	+		_	<u> </u>	<del> </del>	
(clone pHZ-39) (ZNF140)	'	009300		*		+		+	
zinc finger protein 140	1	AF060865	· · · · · · · · · · · · · · · · · · ·	<del>                                     </del>	_			<del>                                     </del>	
(clone pHZ-39) (ZNF140) (non-exact 59%)								ŀ	
zinc finger protein 140	1	· U09368		<del></del>	-	-	<del> </del>	<del> </del>	
(clone pHZ-39) (ZNF140)						ľ	٠		
(non-exact 73%) zinc finger protein 140	1	i contra			<u>.</u>				
(clone pHZ-39) (ZNF140)	- '	S66508						ł	
(non-exact 73%aa)		1	·		1	İ		ŀ	• '
zinc finger protein 140 (clone pHZ-39) (ZNF140)	1	U09368						T	
(non-exact, 80%)						ŀ		l	
zinc finger protein 143	2	U09850	+	+	+	+	+	+	
(clone pHZ-1) (ZNF143)									
zinc finger protein 143 (clone pHZ-1) (ZNF143)	1	U098 <b>50</b>	1						
(low match)	1		,				1		
zinc finger protein 148	1	AF039019	+						
(pHZ-52) (ZNF148) ZINC FINGER PROTEIN	1	047406							
151 (MIZ-1 PROTEIN) (low	1 1	Q13105							
match)			1				ł	ļ	
zinc finger protein 173	1	U09825	B, T	+	+		+	1	
(ZNF173) zinc finger protein 192		U57796		<u> </u>		_		<u> </u>	
(ZNF192) (non-exact, 66%)	•	001190							
zinc finger protein 198	1	AJ224901	<u> </u>	+	+	+	<u> </u>	<del>                                     </del>	· · · · · · · · · · · · · · · · · · ·
(ZNF198) zinc finger protein 2 (ZNF2)	1	VERGER		L			<u> </u>	<u> </u>	
(low match)	1	X60152					١. ً		
zinc finger protein 200	1	AF060866		+		+	-		
(ZNF200)								<u> </u>	
zinc finger protein 207 (ZNF207)	6	AF046001	+	+	+	+	+	+	high in prostate
zinc finger protein 216	2	AF062072	+	+	+	+	<u> </u>	+	
(ZNF216)								1	'

zinc finger protein 217 (ZNF217)	1	AF041259	Tacti	vated		T	T-	+	
ZINC FINGER PROTEIN	1	P17026		1.	T	+-	+-	<del>  -</del>	
22 (ZINC FINGER	1 :		1	1		ļ.	1		
PROTEIN KOX15) (non- exact 58%)	İ	•	-		1	1	[ .	'	
zinc finger protein 230	<del>                                     </del>	LIDEALA	<del> </del>			↓_	<u> </u>	↓	
(ZNF230)	1 '	U95044	ļ	+	ŀ	ŀ			,
Zinc finger protein 239	1	L26914	<u> </u>	+	├	+	ـ		<u> </u>
(ANF239)	'	1 20014	1	1 .	l				
zinc finger protein 261	1	AB002383		. +	+	+	╁	+	·
(ZNF261)				1			L	1	
zinc finger protein 262 (ANF262)	1	AB007885		+	+	+		+	
zinc finger protein 263		· D88827	<u> </u>	↓	<u> </u>	╀	1	<b>_</b>	
(ZNF263)		D00021	]	1	ļ	] ,	ļ	1	ļ
zinc finger protein 264	1	AB007872	<del> </del>	+	+	+	<del>                                     </del>	<del> </del>	<del></del>
(ZNF264)				'					
ZINC FINGER PROTEIN	1	Q06730				1		T	
33A (ZINC FINGER PROTEIN KOX31)		<b>i</b> .				1		l	
(KIAA0065) (HA0946)		1		1		1	١.,	1	
zinc finger protein 42	<del>                                     </del>	M58297	+ +	+	+	+	├	+	
(myeloid-specific retinoic	1			'	'	'	1	l	
cid- responsive) (ZNF42)	<u> </u>		1	<u> </u>	<u> </u>	1	1_		
zinc finger protein 43 (HTF6) (ZNF43) (low	1	X59244				Π			
match)				1	i -	`		1	. ,
zinc finger protein 43	1	X59244	<del> </del>		<del></del>	+-	<del> </del>	ļ .	
(HTF6) (ZNF43) (non-	1		1	1		1			·
exact, 54%)	<u> </u>	<u> </u>	1.	l		i	1		
zinc finger protein 43	1	X59244			i –				
(HTF6) (ZNF43) (non- exact, 71%)		· ·			1	1	1		,
ZINC FINGER PROTEIN	1	P28160	<u> </u>	ļ	ļ	ļ			
43 (ZINC PROTEIN HTF6)	'	F 20 100	1	1.	1	-			
(non-exact 67%)	İ	· .		ľ	ł	١.	1.	İ	
				1		1			
zinc finger protein 45 (a	1	L75847		<del> </del>		-	-		only found in testis
Kruppel-associated box	1	L75847		-					only found in testis
Kruppel-associated box (KRAB) domain	1	L75847		,					only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45)  ZINC FINGER PROTEIN	1								only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER		L75847 P24278							only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact									only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%)	1	P24278							only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6				+	+	+		+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74	1	P24278 X56465		+	+	+		+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-	1	P24278		+	+	+		+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%)	1	P24278  X56465  X71623		+	+	+		+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact 67%) Zinc finger protein 76	1	P24278 X56465		+	+	+		+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis)	1	P24278  X56465  X71623							only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76)	1	P24278  X56465  X71623  M91592							only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER	1	P24278  X56465  X71623							only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-	1	P24278  X56465  X71623  M91592							only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%)	1	P24278  X56465  X71623  M91592  P51522		+	+			+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84	1	P24278  X56465  X71623  M91592	T activated						only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84)	1 1	P24278  X56465  X71623  M91592  P51522  M27878	Tactivated	+	+	•		+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84) Zinc finger protein 85 (ZNF85))	1	P24278  X56465  X71623  M91592  P51522	Tactivated	+	+			+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84) Zinc finger protein 85	1 1	P24278  X56465  X71623  M91592  P51522  M27878	Tactivated	+	+	•	+	+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84) Zinc finger protein 85 (ZNF85)) Zinc finger protein 9 (ZNF9)	1 1 1 2	P24278  X56465  X71623  M91592  P51522  M27878  U35376  M28372	Tactivated	+	+	+	+	+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84) Zinc finger protein 85 (ZNF85)) Zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 95 (=ZINC FINGER	1 1 2 5	P24278  X56465  X71623  M91592  P51522  M27878  U35376	Tactivated	+	+	+	+	+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84) Zinc finger protein 85 (ZNF85)) Zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 95 (=ZINC FINGER PROTEIN HTF34) (non-	1 1 2 5	P24278  X56465  X71623  M91592  P51522  M27878  U35376  M28372	Tactivated	+	+	+	+	+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84) Zinc finger protein 85 (ZNF85)) Zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 970) (=ZINC FINGER PROTEIN HTF34) (non-exact 70%)	1 1 2 5 1	P24278  X56465  X71623  M91592  P51522  M27878  U35376  M28372  P35789	T activated	+ + + +	+ + + +	+	+	+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84) Zinc finger protein 85 (ZNF85)) Zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN HTF34) (non-exact 70%) Zinc finger protein C2H2-25	1 1 2 5	P24278  X56465  X71623  M91592  P51522  M27878  U35376  M28372	T activated	+	+	+	+	+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84) Zinc finger protein 85 (ZNF85)) Zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 94 (=ZINC FINGER	1 1 2 5 1	P24278  X56465  X71623  M91592  P51522  M27878  U35376  M28372  P35789  U38904	T activated	+ + + +	+ + + +	+	+	+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF85)) Zinc finger protein 85 (ZNF85)) Zinc FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN HTF34) (non-exact 70%) Zinc finger protein C2H2-25 (ZNF25) Zinc finger protein clone L3-4	1 1 2 5 1	P24278  X56465  X71623  M91592  P51522  M27878  U35376  M28372  P35789	Tactivated	+ + + +	+ + + +	+	+	+	only found in testis
Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF84) Zinc finger protein 85 (ZNF85)) Zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN HTF34) (non-exact 70%) Zinc finger protein C2H2-25 (ZNF25) Zinc finger protein clone L3-4 Zinc finger protein	1 1 2 5 1	P24278  X56465  X71623  M91592  P51522  M27878  U35376  M28372  P35789  U38904	T activated	+ + + + + + + + + + + + + + + + + + + +	+ + + +	+	+	+	
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Kruppel-associated box (KRAB) domain polypeptide) (ZNF45) ZINC FINGER PROTEIN 46 (ZINC FINGER PROTEIN KUP) (non-exact 62%) Zinc finger protein 6 (CMPX1) (ZNF6) Zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) Zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) Zinc finger protein 84 (HPF2) (ZNF85)) Zinc finger protein 85 (ZNF85)) Zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN 910 (=ZINC FINGER PROTEIN CONE 910 (=ZINC FINGER PROTEIN (=ZINC FINGER PROTEIN CONE 910 (=ZINC FINGER PROTEIN (=ZINC FINGER PROTEIN (=ZINC FINGER PROTEIN (=ZINC FINGER PROTEIN (=ZINC FINGER PROTEIN (=ZINC FINGER PROTEIN (=ZINC FINGER PROTEIN (=ZINC	1 1 2 5 1	P24278  X56465  X71623  M91592  P51522  M27878  U35376  M28372  P35789  U38904  AF024706		+ + + + + + + + + + + + + + + + + + + +	+ + + +	+	+	+	

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ZINC FINGER PROTEIN HRX (ALL-1) (71%a.a.)	1	Q03164									
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zinc finger protein RIZ	1.	D45132	+	+	+	+		+		<del></del>	
zinc finger protein, subfamily 1A, 1 (Ikaros) (LYF1)	1	U40462	+ -								•
zinc finger protein, subfamily 1A, 1 (Ikaros) (LYF1) (low match)	1	U40462									
zinc finger transcriptional regulator (GOS24)	1	M92844									
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ZNF80-linked ERV9 long terminal repeat	1	X83497					,				
ZW10 (Drosophila) homolog, centromere/kinetochore protein (ZW10)	2 .	U54996		+							
zyxin (ZYX)	4	X95735	<del> </del>	1		_	_		·		

Column 1: List of unique genes derived from 6,283 known ESTs from blood cells.

Column 2: Number of genes found in randomly sequenced ESTs from blood cells.

Column 3: Accession number. Column 4: "+" indicates the presence of the unique gene in publicly available cDNA libraries of blood (Bl), brain (Br), heart (H), kidney (K), liver (Li) and lung (Lu). \*\*Comparison to previously identified tissue-specific genes was determined using the GenBank of the National Centre of Biotechnology Information (NCBI) Database.

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### **Discussion**

Every cell and tissue comprising the human body share the necessary genetic information required to maintain cellular homeostasis. These "housekeeping" genes function in basic cellular maintenance, including energy metabolism and cellular structure in all cell types. However, in certain situations, even the housekeeping genes show altered expression. Thus, it is necessary to define the use of these genes as internal controls from one investigation to another. Current results from the human blood cell EST database indicate that over 50% of the transcripts are

widely expressed throughout the human body. Most of the cell or tissue specific genes are also detectable in blood cells by RT-PCR analysis.

For example, isoformic myosin heavy chain genes are known to be generally expressed in cardiac muscle tissue. In the rodent, the βMyHC gene is only highly expressed in the fetus and in diseased states such as overt cardiac hypertrophy, heart failure and diabetes; the αMyHC gene is highly expressed shortly after birth and continues to be expressed in the adult heart. In the human, however, βMyHC is highly expressed in the ventricles from the fetal stage through adulthood. This highly expressed βMyHC, which harbours several mutations, has been demonstrated to be involved in familial hypertrophic cardiomyopathy (Geisterfer-Lowrance *et al.* 1990). It was reported that mutations of βMyHC can be detected by PCR using blood lymphocyte DNA (Ferrie et al., 1992). Most recently, it was also demonstrated that mutations of the myosin-binding protein C in familial hypertrophic cardiomyopathy can be detected in the DNA extracted from lymphocytes (Niimura *et al.*, 1998).

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Similarly, APP and APC, which are known to be tissue specific and predominantly expressed in the brain and intestinal tract, are also detectable in the transcripts of blood. These cell- or tissue-specific transcripts are not detectable by Northern blot analysis. However, the low number of transcript copies can be detected by RT-PCR analysis. These findings strongly demonstrate that genes preferentially expressed in specific tissues can be detected by a highly sensitive RT-PCR assay. In recent years, evidence has been obtained to indicate that expression of cell or tissue-restricted genes can be detected in the peripheral blood of patients with metastatic transitional cell carcinoma (Yuasa et al. 1998) and patients with prostate cancer (Gala et al. 1998).

Atrial natriuretic factor (ANF) and zinc finger protein (ZFP), which are known to be highly expressed in heart tissue biopsies and in the plasma of heart failure patients, are also detectable in the transcripts of blood. Differential expression of zinc finger protein among the normal, diabetic and asymptomatic preclinical

subjects may have additional value as a prophylactic "early warning system". On a related note, there is now more attention/discussion in the cardiovascular disease field being focused on Syndrome X, loosely defined as a continuum of hypertension, increasing sugar levels, diabetes, kidney failure, culminating in heart failure, with the possibility of stroke and heart attack at any time in the continuum. The early identification of patients at risk of organ failure has been a challenge to the medical community for some time and the present method has the potential of resolving or, at least, ameliorating this challenge.

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The present invention demonstrates that a simple drop of blood may be used to determine the quantitative expression of various mRNAs that reflect the health/disease state of the subject through the use of RT-PCR analysis. This entire process takes about three hours or less. The single drop of blood may also be used for multiple RT-PCR analyses. There is no need for large samples and/or costly and time-consuming separation of cell types within the blood for this method as compared to the methods described by Kimoto (1998) and Chelly et al. (1989; 1988). It is believed that the present finding can potentially revolutionize the way that diseases are detected, diagnosed and monitored because it provides a non-invasive, simple, highly sensitive and quick screening for tissue-specific transcripts. The transcripts detected in whole blood have potential as prognostic or diagnostic markers of disease, as they reflect disturbances in homeostasis in the human body. Delineation of the sequences and/or quantitation of the expression levels of these marker genes by RT-PCR will allow for an immediate and accurate diagnostic/prognostic test for disease or to assess the efficacy and monitor a particular therapeutic.

In addition to RT-PCR, other methods of amplifying may also be used for the purpose of measuring/quantitating tissue-specific transcripts in human blood. For example, mass spectrometry may be used to quantify the transcripts (Koster et al., 1996; Fu et al., 1998). The application of presently disclosed method for detecting tissue-specific transcripts in blood does not restrict to subjects undergoing course of

therapy or treatment, it may also be used for monitoring a patient for the onset of overt symptoms of a disease. Furthermore, the present method may be used for detecting any gene transcripts in blood. A kit for diagnosing, prognosing or even predicting a disease may be designed using gene-specific primers or probes derived from a whole blood sample for a specific disease and applied directly to a drop of blood. A cDNA library specific for a disease may be generated from whole blood samples and used for diagnosis, prognosis or even predicting a disease.

The following references were cited herein:

Claudio JO et al. (1998). Genomics 50:44-52.

10 Chelly J et al. (1989). Proc. Nat. Acad. Sci. USA. 86:2617-2621.

Chelly J et al. (1988). Nature 333:858-860.

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Ferrie RM et al. (1992). Am. J. Hum. Genet. 51:251-62.

Fu D-J et al. (1998). Nat. Biotech 16: 381-4.

15 Gala JL et al. (1998). Clin. Chem. 44(3):472-81.

Geisterfer-Lowrance AAT et al. (1990). Cell 62:999-1006.

Groden J et al. (1991). Cell 66:589-600.

Hwang DM et al. (1997). Circulation 96:4146-4203.

Jandreski MA & Liew CC (1987). Hum. Genet. 76:47-53.

20 Jin O et al. (1990). Circulation 82:8-16

Kimoto Y (1998). Mol. Gen. Genet 258:233-239.

Koster M et al. (1996). Nat. Biotech 14: 1123-8.

Liew & Jandreski (1986). Proc. Nat. Acad. Sci. USA, 83:3175-3179

Liew CC et al. (1990). Nucleic Acids Res. 18:3647-3651.

25 Liew CC (1993). J Mol. Cell. Cardiol. 25:891-894

Liew CC et al. (1994). Proc. Natl. Acad. Sci. USA. 91:10645-10649.

Liew et al. (1997). Mol. and Cell. Biochem. 172:81-87.

Niimura H et al. (1998). New Eng. J. Med. 338:1248-1257.

Ogawa M (1993). Blood 81:2844-2853.

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Santoro IM & Groden J (1997). Cancer Res. 57:488-494.

Yuasa T et al. (1998). Japanese J. Cancer Res. 89:879-882.

Any patents or publications mentioned in this specification are indicative of the levels of those skilled in the art to which the invention pertains. Further, these patents and publications are incorporated by reference herein in their entirety to the same extent as if each individual publication was specifically and individually indicated to be incorporated by reference.

One skilled in the art will appreciate readily that the present invention is well adapted to carry out the objects and obtain the ends and advantages mentioned, as well as those objects, ends and advantages inherent herein. The present examples, along with the methods, procedures, treatments, molecules, and specific compounds described herein are presently representative of preferred embodiments, are exemplary, and are not intended as limitations on the scope of the invention. Changes therein and other uses will occur to those skilled in the art which are encompassed within the spirit of the invention as defined by the scope of the claims.

- 1. A method for detecting expression of a gene in blood from a subject, comprising the steps of:
  - a) quantifying RNA from a subject blood sample; and
- b) detecting expression of said gene in the quantified RNA, wherein the expression of said gene in said quantified RNA indicates expression of said gene in the subject blood.
- 10 2. The method of claim 1, wherein the quantification is performed by mass spectrometry.
  - 3. A method for detecting expression of one or more genes in blood from a subject, comprising the steps of:

- a) obtaining a subject blood sample;
- b) extracting RNA from said blood sample;
- c) amplifying said RNA;
- d) generating expressed sequence tags from the amplified RNA product; and
- e) detecting expression of said genes in the expressed sequence tags, wherein the expression of said genes in said expressed sequence tags indicates expression of said genes in the subject blood.
  - 4. The method of claim 3, wherein said genes are non-cancerassociated genes.
    - 5. The method of claim 3, wherein said genes are tissue-specific genes.

- 6. The method of claim 3, wherein said subject is a fetus, an embryo, a child, an adult or a non-human animal.
- 7. The method of claim 3, wherein the amplification is performed by RT-PCR.
- 8. The method of claim 7, wherein said RT-PCR utilizes primers selected from the group consisting of random sequence primers and gene-specific primers.
  - 9. A method for detecting expression of one or more genes in blood from a subject, comprising the steps of:
    - a) obtaining a subject blood sample;

15 b) extracting DNA fragment(

- b) extracting DNA fragment(s) from said blood sample;
- c) amplifying said DNA fragment(s); and
- d) detecting expression of said genes in the amplified DNA product, wherein the expression of said genes in said amplified DNA product indicates expression of said genes in the subject blood.

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- 10. A method for monitoring a course of therapeutic treatment in an individual, comprising the steps of:
  - a) obtaining a blood sample from said individual;
  - b) extracting RNA from said blood sample;
  - c) amplifying said RNA;
- d) generating expressed sequence tags from the amplified RNA product; and

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- e) detecting expression of genes in said expressed sequence tags, wherein the expression of said genes is associated with the effect of said therapeutic treatment; and
- f) repeating steps a)-e), wherein the course of said therapeutic treatment is monitored by detecting the change of expression of said genes in the expressed sequence tags.
  - 11. The method of claim 10, wherein the amplification is performed by RT-PCR.

- 12. The method of claim 11, wherein the change of expression of said genes in the expressed sequence tags is monitored by sequencing the expressed sequence tags and comparing the resulting sequences at various time points.
- 13. The method of claim 11, wherein the change of expression of said genes in the expressed sequence tags is monitored by performing single nucleotide polymorphism analysis and detecting the variation of a single nucleotide in the expressed sequence tags at various time points.
- 20 14. The method of claim 10, wherein said individual is monitored for the onset of overt symptoms of a disease, and wherein the expression of said genes is associated with the onset of said symptoms.
- 15. A method for diagnosing a disease in a test subject, comprising 25 the steps of:
  - a) generating a cDNA library for said disease from a whole blood sample from a normal subject;

b) generating expressed sequence tag (EST) profile from the normal subject cDNA library;

- c) generating a cDNA library for said disease from a whole blood sample from a test subject;
  - d) generating EST profile from the test subject cDNA library; and
- e) comparing the test subject EST profile to the normal subject EST profile, wherein if said test subject EST profile differs from said normal subject EST profile, said test subject might be diagnosed with said disease.
- 16. A kit for diagnosing, prognosing or predicting a disease, comprising:
  - a) gene-specific primers; wherein said primers are designed in such a way that the sequences of said primers contain the opposing ends of two adjacent exons for the specific gene with the intron sequence excluded; and
- b) a carrier, wherein said carrier immobilizes said primer(s).

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- 17. The kit of claim 16, wherein said gene-specific primer(s) are selected from the group consisting of insulin-specific primers, atrial natriuretic factor-specific primers, zinc finger protein gene-specific primers, beta-myosin heavy chain gene-specific primers, amyloid precurser protein gene-specific primers, and adenomatous polyposis-coli protein gene-specific primers.
- 18. The kit of claim 17, wherein the sequences of said genespecific primers are selected from the group consisting of SEQ ID Nos. 1 and 2, and SEQ ID Nos. 5 and 6.
- 19. A method for diagnosing, prognosing or predicting a disease in a test subject, comprising the step of:

applying the kit of claim 16 to a test subject whole blood sample, wherein quantitative expression levels of specific genes associated with said disease are detected and compared to the levels of said specific genes expressed in a normal subject, therefore, said disease may be diagnosed, prognosed or predicted.

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20. The method of claim 19, wherein said method is used for monitoring a course of therapeutic treatment or monitoring the onset of overt symptoms of said disease.

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- 21. A kit for diagnosing, prognosing or predicting a disease, comprising:
- a) probes derived from a whole blood sample for a specific disease; and
  - b) a carrier, wherein said carrier immobilizes said probes.

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22. A method for diagnosing, prognosing or predicting a disease in a test subject, comprising the step of:

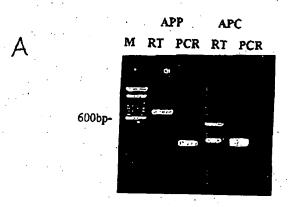
applying the kit of claim 21 to a test subject whole blood sample, wherein quantitative expression levels of specific genes associated with said disease are detected and compared to the levels of said specific genes expressed in a normal subject, therefore, said disease may be diagnosed, prognosed or predicted.

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- 23. The method of claim 22, wherein said method is used for monitoring a course of therapeutic treatment or monitoring the onset of overt symptoms of said disease.
- 24. A cDNA library specific for a disease, wherein said cDNA library is generated from whole blood samples.

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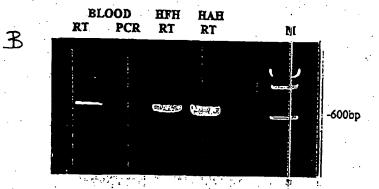


FIGURE 1

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FIGURE 2

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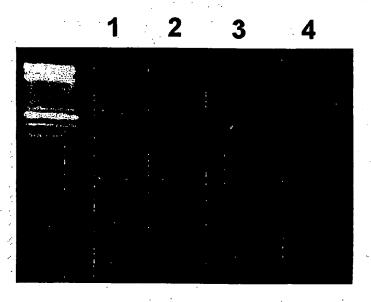


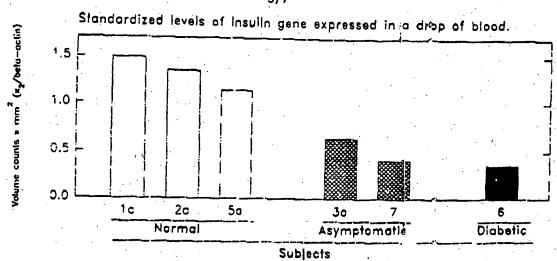
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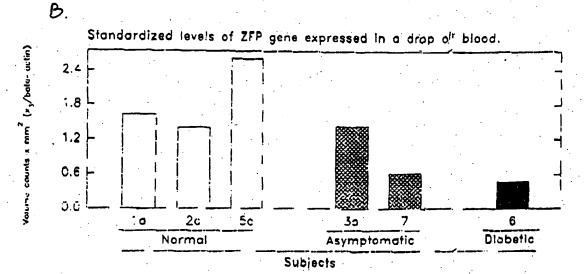
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FIGURE 4

A.

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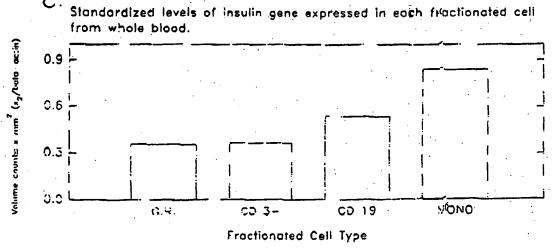


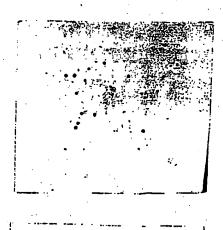
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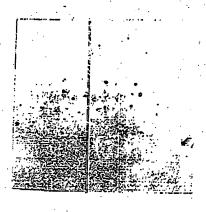
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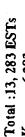
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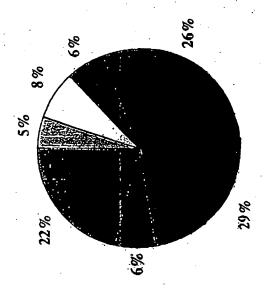
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Ribosome: 498 Repeat: 868

Mis.: 156 Novel: 2,718

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### Human Blood



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# ☐ Cell Signalling/Communication

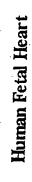
### Cell structure/Motility

### Cell/organism defense

## Gene/Protein expression



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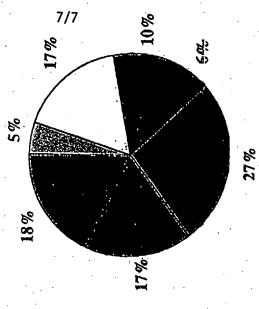


FIGURE 7

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### (19) World Intellectual Property Organization International Bureau





### (43) International Publication Date 13 July 2000 (13.07.2000)

### PCT

### (10) International Publication Number WO 00/40749 A3

(51) International Patent Classification7:

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C12Q 1/68

- (21) International Application Number: PCT/CA00/00005
- (22) International Filing Date: 5 January 2000 (05.01.2000)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/115,125 09/477,148 6 January 1999 (06.01.1999) U 4 January 2000 (04.01.2000) U

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- (81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

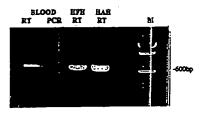
### Published:

- with international search report
- (88) Date of publication of the international search report:
  19 July 2001

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### (54) Title: METHOD FOR THE DETECTION OF GENE TRANSCRIPTS IN BLOOD AND USES THEREOF





00/40749 A3

(57) Abstract: The present invention is directed to detection and measurement of gene transcripts in blood. Specifically provided is a RT-PCR analysis performed on a drop of blood for detecting, diagnosing and monitoring diseases using tissue-specific primers. The present invention also describes methods by which delineation of the sequence and/or quantitation of the expression levels of disease-associated genes allows for an immediate and accurate diagnostic/prognostic test for disease or to assess the effect of a particular treatment regimen.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Inter mai Application No PCT/CA 00/00005

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C1201/68

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, MEDLINE, CHEM ABS Data, BIOSIS, EMBASE, EMBL

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### CORRECTED VERSION

### (19) World Intellectual Property Organization International Bureau



### (43) International Publication Date 13 July 2000 (13.07.2000)

### **PCT**

### (10) International Publication Number WO 00/40749 A3

(51) International Patent Classification7:

C12Q 1/68

- (21) International Application Number: PCT/CA00/00005
- (22) International Filing Date: 5 January 2000 (05.01.2000)
- (25) Filing Language:

English

(26) Publication Language:

tario, M2R 1L8 (CA).

English

(30) Priority Data:

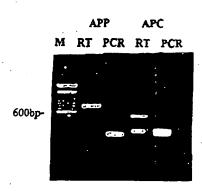
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(71) Applicant (for all designated States except US): GENE-NEWS INC. [CA/CA]; 45 Bevdale Road, Toronto, On(72) Inventor; and

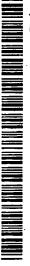
- (75) Inventor/Applicant (for US only): LIEW, Choong-Chin [CA/CA]; 81 Millersgrove Drive, Willowdale, Ontario M2R 3S1 (CA).
- (74) Agent: DEETH WILLIAMS WALL; National Bank Building, Suite 400, 150 York Street, Toronto, Ontario M5H 3S5 (CA).
- (81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT. RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

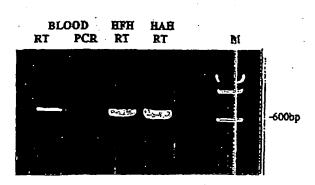
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(54) Title: METHOD FOR THE DETECTION OF GENE TRANSCRIPTS IN BLOOD AND USES THEREOF



(57) Abstract: The present invention is directed to detection and measurement of gene transcripts in blood. Specifically provided is a RT-PCR analysis performed on a drop of blood for detecting, diagnosing and monitoring diseases using tissue-specific primers. The present invention also describes methods by which delineation of the sequence and/or quantitation of the expression levels of disease-associated genes allows for an immediate and accurate diagnostic/prognostic test for disease or to assess the effect of a particular treatment regimen.





WO 00/40749 A3



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### Published:

- with international search report
- (88) Date of publication of the international search report:
- (48) Date of publication of this corrected version: 23 August 2001
- (15) Information about Correction: see PCT Gazette No. 34/2001 of 23 August 2001, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the RCT Gazette.

### METHOD FOR THE DETECTION OF GENE TRANSCRIPTS IN BLOOD AND USES THEREOF

### **BACKGROUND OF THE INVENTION**

### Cross-Reference to Related Application

This application claims the benefit of priority of provisional patent application U.S. Serial Number 60/115,125, filed January 6, 1999 and of a U.S. application entitled "Method for the Detection of Gene Transcripts in Blood and uses Thereof" filed on January 4, 2000 (application number not yet assigned).

### Field of the Invention

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The present invention relates generally to the molecular biology of human diseases. More specifically, the present invention relates to a process using the genetic information contained in human peripheral whole blood for the diagnosis, prognosis and monitoring of genetic and infectious disease in the human body.

### Description of the Related Art

The blood is a vital part of the human circulatory system for the human body. Numerous cell types make up the blood tissue including monocytes, leukocytes, lymphocytes and erythrocytes. Although many blood cell types have been described, there are likely many as yet undiscovered cell types in the human blood. Some of these undiscovered cells may exist transiently, such as those derived from tissues and organs that are constantly interacting with the circulating blood in health and disease. Thus, the blood can provide an immediate picture of what is happening in the human body at any given time.

The turnover of cells in the hematopoietic system is enormous. It was reported that over one trillion cells, including 200 billion erythrocytes and 70 billion neutrophilic leukocytes, turn over each day in the human body (Ogawa 1993). As a consequence of continuous interactions between the blood and the body, genetic changes that occur within the cells or tissues of the body will trigger specific changes in gene expression within blood. It is the goal of the present invention that these genetic alterations be harnessed for diagnostic and prognostic purposes, which may lead to the development of therapeutics for ameliorating disease.

The complete profile of gene expression in the circulating blood remains totally unexplored. It is hypothesized that gene expression in the blood is reflective of body state and, as such, the resultant disruption of homeostasis under conditions of disease can be detected through analysis of transcripts differentially expressed in the blood alone. Thus, the identification of several key transcripts or genetic markers in blood will provide information about the genetic state of the cells, tissues, organs and systems of the human body in health and disease.

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The prior art is deficient in non-invasive methods of screening for tissue-specific diseases. The present invention fulfills this long-standing need and desire in the art.

### **SUMMARY OF THE INVENTION**

This present invention discloses a process of using the genetic information contained in human peripheral whole blood in the diagnosis, prognosis and monitoring of genetic and infectious disease in the human body. The process described herein requires a simple blood sample and is, therefore, non-invasive compared to conventional practices used to detect tissue specific disease, such as biopsies.

One object of the present invention is to provide a non-invasive method for the diagnosis, prognosis and monitoring of genetic and infectious disease in humans and animals.

In one embodiment of the present invention, there is provided a method for detecting expression of a gene in blood from a subject, comprising the steps of: a) quantifying RNA from a subject blood sample; and b) detecting expression of the gene in the quantified RNA, wherein the expression of the gene in quantified RNA indicates the expression of the gene in the subject blood.

In another embodiment of the present invention, there is provided a method for detecting expression of one or more genes in blood from a subject, comprising the steps of: a) obtaining a subject blood sample; b) extracting RNA from the blood sample; c) amplifying the RNA; d) generating expressed sequence tags (ESTs) from the amplified RNA product; and e) detecting expression of the genes in the ESTs, wherein the expression of the genes in the ESTs indicates the expression of the genes in the subject blood. Preferably, the genes are tissue-specific genes.

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In still another embodiment of the present invention, there is provided a method for detecting expression of one or more genes in blood from a subject, comprising the steps of: a) obtaining a subject blood sample; b) extracting DNA fragments from the blood sample; c) amplifying the DNA fragments; and d) detecting expression of the genes in the amplified DNA product, wherein the expression of the genes in the subject blood.

In yet another embodiment of the present invention, there is provided a method for monitoring a course of a therapeutic treatment in an individual, comprising the steps of: a) obtaining a blood sample from the individual; b) extracting RNA from the blood sample; c) amplifying the RNA; d) generating expressed sequence tags (ESTs) from the amplified RNA product; e) detecting expression of genes in the ESTs, wherein the expression of the genes is associated with the effect of

the therapeutic treatment: and f) repeating steps a)-e), wherein the course of the therapeutic treatment is monitored by detecting the change of expression of the genes in the ESTs. Such a method may also be used for monitoring the onset of overt symptoms of a disease, wherein the expression of the genes is associated with the onset of the symptoms.

In still yet another embodiment of the present invention, there is provided a method for diagnosing a disease in a test subject, comprising the steps of:

a) generating a cDNA library for the disease from a whole blood sample from a normal subject; b) generating expressed sequence tag (EST) profile from the normal subject cDNA library; c) generating a cDNA library for the disease from a whole blood sample from a test subject; d) generating EST profile from the test subject cDNA library; and e) comparing the test subject EST profile to the normal subject EST profile, wherein if the test subject EST profile differs from the normal subject EST profile, the test subject might be diagnosed with the disease.

In still yet another embodiment of the present invention, there is provided a kit for diagnosing, prognosing or predicting a disease, comprising: a) gene-specific primers; wherein the primers are designed in such a way that their sequences contain the opposing ends of two adjacent exons for the specific gene with the intron sequence excluded; and b) a carrier, wherein the carrier immobilizes the primer(s). Such a kit may be applied to a test subject whole blood sample to diagnose, prognose or predict a disease.

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In yet another embodiment of the present invention, there is provided a kit for diagnosing, prognosing or predicting a disease, comprising: a) probes derived from a whole blood sample for a specific disease; and b) a carrier, wherein the carrier immobilizes the probes. Such a kit may be applied to a test subject whole blood sample to diagnose, prognose or predict a disease.

Furthermore, the present invention provides a cDNA library specific for a disease, wherein the cDNA library is generated from whole blood samples.

Other and further aspects, features, and advantages of the present invention will be apparent from the following description of the presently preferred embodiments of the invention. These embodiments are given for the purpose of disclosure.

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### BRIEF DESCRIPTION OF THE DRAWINGS

So that the matter in which the above-recited features, advantages and objects of the invention, as well as others which will become clear, are attained and can be understood in detail, more particular descriptions of the invention briefly summarized above may be had by reference to certain embodiments thereof which are illustrated in the appended drawings. These drawings form a part of the specification. It is to be noted, however, that the appended drawings illustrate preferred embodiments of the invention and therefore are not to be considered limiting in their scope not be considered to limit the scope of the invention.

Figure 1 shows the following RNA samples prepared from human blood; Figure 1A: Lane 1, Molecular weight marker; Lane 2, RT-PCR on APP gene; Lane 3, PCR on APP gene; Lane 4, RT-PCR on APC gene; Lane 5, PCR on APC gene; Figure 1B: Lanes 1 and 2, RT-PCR and PCR of βMyHC, respectively; Lanes 3 and 4, RT-PCR of βMyHC from RNA prepared from human fetal and human adult heart, respectively; Lane 5, Molecular weight marker.

Figure 2 shows quantitative RT-PCR analysis performed on RNA samples extracted from a drop of blood. Forward primer (5'-GCCCTCTGGGGACCTGAC-3', SEQ ID No. 1) of exon 1 and reverse primer (5'-CCCACCTGCAGGTCCTCT-3", SEQ ID No. 2) of exons 1 and 2 of insulin gene. Blood samples of 4 normal subjects were assayed. Lanes 1, 3, 5 and 7 represent overnight "fasting" blood sample and lanes 2, 4, 6 and 8 represent "non-fasting" samples.

Figure 3 shows quantitative RT-PCR analysis performed on RNA samples extracted from a drop of blood. Lanes 1 and 2 represent normal healthy person and lane 3 represents late-onset diabetes (Type II) and lane 4 represents asymptomatic diabetes.

Figure 4 shows multiple RT-PCR assay in a drop of blood. Primers were derived from insulin gene (INS), zinc-finger protein gene (ZFP) and house-keeping gene (GADH). Lane 1 represents normal person. Lane 2 represents lateonset diabetes and lane 3 represents asymptomatic diabetes.

Figure 5 shows standardized levels of insulin gene (Figure 5A) and ZFP gene (Figure 5B) expressed in a drop of blood. The first three subjects were normal, second two subjects showed normal glucose tolerance, and the last subject had late onset diabetes type II. Figure 5C shows standardized levels of insulin gene expressed in each fractionated cell from whole blood.

Figure 6 shows the differential screening of human blood cell cDNA library with different cDNA probes of heart and brain tissue. Figure 6A shows blood cell cDNA probes vs. adult heart cDNA probes. Figure 6B shows blood cell cDNA probes vs. human brain cDNA probes.

Figure 7 graphically shows the 1,800 unique genes in human blood and in the human fetal heart grouped into seven cellular functions.

### DETAILED DESCRIPTION OF THE INVENTION

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In accordance with the present invention, there may be employed conventional molecular biology, microbiology, and recombinant DNA techniques within the skill of the art. Such techniques are explained fully in the literature. See, e.g., Sambrook, Fritsch & Maniatis, "Molecular Cloning: A Laboratory Manual (1982); "DNA Cloning: A Practical Approach," Volumes I and II (D.N. Glover ed. 1985); "Oligonucleotide Synthesis" (M.J. Gait ed. 1984); "Nucleic Acid

Hybridization" [B.D. Hames & S.J. Higgins eds. (1985)]; "Transcription and Translation" [B.D. Hames & S.J. Higgins eds. (1984)]; "Animal Cell Culture" [R.I. Freshney, ed. (1986)]; "Immobilized Cells And Enzymes" [IRL Press, (1986)]; B. Perbal, "A Practical Guide To Molecular Cloning" (1984). Therefore, if appearing herein, the following terms shall have the definitions set out below.

A "cDNA" is defined as copy-DNA or complementary-DNA, and is a product of a reverse transcription reaction from an mRNA transcript. "RT-PCR" refers to reverse transcription polymerase chain reaction and results in production of cDNAs that are complementary to the mRNA template(s).

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The term "oligonucleotide" is defined as a molecule comprised of two or more deoxyribonucleotides, preferably more than three. Its exact size will depend upon many factors which, in turn, depend upon the ultimate function and use of the oligonucleotide. The term "primer" as used herein refers to an oligonucleotide, whether occurring naturally as in a purified restriction digest or produced synthetically, which is capable of acting as a point of initiation of synthesis when placed under conditions in which synthesis of a primer extension product, which is complementary to a nucleic acid strand, is induced, i.e., in the presence of nucleotides and an inducing agent such as a DNA polymerase and at a suitable temperature and pH. The primer may be either single-stranded or double-stranded and must be sufficiently long to prime the synthesis of the desired extension product in the presence of the inducing agent. The exact length of the primer will depend upon many factors, including temperature, source of primer and the method used. For example, for diagnostic applications, depending on the complexity of the target sequence, the oligonucleotide primer typically contains 15-25 or more nucleotides, although it may contain fewer nucleotides. The factors involved in determining the appropriate length of primer are readily known to one of ordinary skill in the art.

As used herein, random sequence primers refer to a composition of primers of random sequence, i.e. not directed towards a specific sequence. These

sequences possess sufficient complementary to hybridize with a polynucleotide and the primer sequence need not reflect the exact sequence of the template.

"Restriction fragment length polymorphism" refers to variations in DNA sequence detected by variations in the length of DNA fragments generated by restriction endonuclease digestion.

A standard Northern blot assay can be used to ascertain the relative amounts of mRNA in a cell or tissue obtained from plant or other tissue, in accordance with conventional Northern hybridization techniques known to those persons of ordinary skill in the art. The Northern blot uses a hybridization probe, e.g. radiolabelled cDNA, either containing the full-length, single stranded DNA or a fragment of that DNA sequence at least 20 (preferably at least 30, more preferably at least 50, and most preferably at least 100 consecutive nucleotides in length). The DNA hybridization probe can be labelled by any of the many different methods known to those skilled in this art. The labels most commonly employed for these studies are radioactive elements, enzymes, chemicals which fluoresce when exposed to untraviolet light, and others. A number of fluorescent materials are known and can be utilized as labels. These include, for example, fluorescein, rhodamine, auramine, Texas Red, AMCA blue and Lucifer Yellow. A particular detecting material is antirabbit antibody prepared in goats and conjugated with fluorescein through an isothiocyanate. Proteins can also be labeled with a radioactive element or with an enzyme. The radioactive label can be detected by any of the currently available counting procedures. The preferred isotope may be selected from <sup>3</sup>H, <sup>14</sup>C, <sup>32</sup>P, <sup>35</sup>S, 36Cl, 51Cr, 57Co, 58Co, 59Fe, 90Y, 125I, 131I, and 186Re. Enzyme labels are likewise useful, and can be detected by any of the presently utilized colorimetric, amperometric spectrophotometric, fluorospectrophotometric, techniques. The enzyme is conjugated to the selected particle by reaction with bridging molecules such as carbodiimides, diisocyanates, glutaraldehyde and the like. Many enzymes which can be used in these procedures are known and can be utilized.

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The preferred are peroxidase,  $\beta$ -glucuronidase,  $\beta$ -D-glucosidase,  $\beta$ -D-galactosidase, urease, glucose oxidase plus peroxidase and alkaline phosphatase. U.S. Patent Nos. 3,654,090, 3,850,752, and 4,016,043 are referred to by way of example for their disclosure of alternate labeling material and methods.

As used herein, "individual" refers to human subjects as well as nonhuman subjects. The examples herein are not meant to limit the methodology of the present invention to human subjects only, as the instant methodology is useful in the fields of veterinary medicine, animal sciences and such.

In one embodiment of the present invention, there is provided a method for detecting expression of a gene in blood from a subject, comprising the steps of: a) quantifying RNA from a subject blood sample; and b) detecting expression of the gene in the quantified RNA, wherein the expression of the gene in quantified RNA indicates the expression of the gene in the subject blood. An example of the quantifying method is by mass spectrometry.

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In another embodiment of the present invention, there is provided a method for detecting expression of one or more genes in blood from a subject, comprising the steps of: a) obtaining a subject blood sample; b) extracting RNA from the blood sample; c) amplifying the RNA; d) generating expressed sequence tags (ESTs) from the amplified RNA product; and e) detecting expression of the genes in the ESTs, wherein the expression of the genes in the ESTs indicates the expression of the genes in the subject blood. Preferably, the subject is a fetus, an embryo, a child, an adult or a non-human animal. The genes are non-cancer-associated and tissue-specific genes. Still preferably, the amplification is performed by RT-PCR using random sequence primers or gene-specific primers.

In still another embodiment of the present invention, there is provided a method for detecting expression of one or more genes in blood from a subject, comprising the steps of: a) obtaining a subject blood sample; b) extracting DNA fragments from the blood sample; c) amplifying the DNA fragments; and d) detecting

expression of the genes in the amplified DNA product, wherein the expression of the genes in the amplified DNA product indicates the expression of the genes in the subject blood.

In yet another embodiment of the present invention, there is provided a method for monitoring a course of a therapeutic treatment in an individual, comprising the steps of: a) obtaining a blood sample from the individual; b) extracting RNA from the blood sample; c) amplifying the RNA; d) generating expressed sequence tags (ESTs) from the amplified RNA product; e) detecting expression of genes in the ESTs, wherein the expression of the genes is associated with the effect of the therapeutic treatment; and f) repeating steps a)-e), wherein the course of the therapeutic treatment is monitored by detecting the change of expression of the genes in the ESTs. Such a method may also be used for monitoring the onset of overt symptoms of a disease, wherein the expression of the genes is associated with the onset of the symptoms. Preferably, the amplification is performed by RT-PCR, and the change of the expression of the genes in the ESTs is monitored by sequencing the ESTs and comparing the resulting sequences at various time points; or by performing single nucleotide polymorphism analysis and detecting the variation of a single nucleotide in the ESTs at various time points.

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In still yet another embodiment of the present invention, there is provided a method for diagnosing a disease in a test subject, comprising the steps of:

a) generating a cDNA library for the disease from a whole blood sample from a normal subject; b) generating expressed sequence tag (EST) profile from the normal subject cDNA library; c) generating a cDNA library for the disease from a whole blood sample from a test subject; d) generating EST profile from the test subject cDNA library; and e) comparing the test subject EST profile to the normal subject EST profile, wherein if the test subject EST profile differs from the normal subject EST profile, the test subject might be diagnosed with the disease.

In still yet another embodiment of the present invention, there is provided a kit for diagnosing, prognosing or predicting a disease, comprising: a) genespecific primers; wherein the primers are designed in such a way that their sequences contain the opposing ends of two adjacent exons for the specific gene with the intron sequence excluded; and b) a carrier, wherein the carrier immobilizes the primer(s). Preferably, the gene-specific primers are selected from the group consisting of insulinspecific primers, atrial natriuretic factor-specific primers, zinc finger protein genespecific primers, beta-myosin heavy chain gene-specific primers, amyloid precurser protein gene-specific primers, and adenomatous polyposis-coli protein gene-specific primers. Further preferably, the gene-specific primers are selected from the group consisting of SEQ ID Nos. 1 and 2; and SEQ ID Nos. 5 and 6. Such a kit may be applied to a test subject whole blood sample to diagnose, prognose or predict a disease by detecting the quantitative expression levels of specific genes associated with the disease in the test subject and then comparing to the levels of same genes expressed in a normal subject. Such a kit may also be used for monitoring a course of therapeutic treatment or monitoring the onset of overt symptoms of a disease.

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In yet another embodiment of the present invention, there is provided a kit for diagnosing, prognosing or predicting a disease, comprising: a) probes derived from a whole blood sample for a specific disease; and b) a carrier, wherein the carrier immobilizes the probes. Such a kit may be applied to a test subject whole blood sample to diagnose, prognose or predict a disease by detecting the quantitative expression levels of specific genes associated with the disease in the test subject and then comparing to the levels of same genes expressed in a normal subject. Such a kit may also be used for monitoring a course of therapeutic treatment or monitoring the onset of overt symptoms of a disease.

Furthermore, the present invention provides a cDNA library specific for a disease, wherein the cDNA library is generated from whole blood samples.

The following examples are given for the purpose of illustrating various embodiments of the invention and are not meant to limit the present invention in any fashion.

**EXAMPLE 1** 

#### Construction of a cDNA library

RNA extracted from human tissues (including fetal heart, adult heart, liver, brain, prostate gland and whole blood) were used to construct unidirectional cDNA libraries. The first mammalian heart cDNA library was constructed as early as 1982. Since then, the methodology has been revised and optimal conditions have been developed for construction of human heart and hematopoietic progenitor cDNA libraries (Liew et al., 1984; Liew 1993, Claudio et al., 1998). Most of the novel genes which were identified by sequence annotation can now be obtained as full length transcripts.

#### **EXAMPLE 2**

#### Catalogue of blood cell ESTs

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Random partial sequencing of expressed sequence tags (ESTs) of cDNA clones from the blood cell library was carried out to establish an EST database of blood. The known genes as derived from the ESTs were categorized into seven major cellular functions (Hwang, Dempsey et al., 1997).

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#### **EXAMPLE 3**

### Differential screening of cDNA library

cDNA probes generated from transcripts of each tissue were used to hybridize the blood cell cDNA clones (Liew et al., 1997). The "positive" signals which were hybridized with P-labelled cDNA probes were defined as genes which shared identity with blood and respective tissues. The "negative" spots which were not exposed to P-labelled cDNA probes were considered to be blood-cell-enriched or low frequency transcripts.

#### **EXAMPLE 4**

# Reverse transcriptase-polymerase chain reaction (RT-PCR) assay

RNA extracted from samples of human tissue was used for RT-PCR analysis (Jin et al. 1990). Three pairs of forward and reverse primers were designed for human cardiac beta-myosin heavy chain gene (βMyHC), amyloid precurser protein (APP) gene and adenomatous polyposis-coli protein (APC) gene. The PCR products were also subjected to automated DNA sequencing to verify the sequences as derived from the specific transcripts of blood.

#### **EXAMPLE 5**

# Detection of tissue specific gene expression in human blood using RT-PCR

The beta-myosin heavy chain gene (βMyHC) transcript (mRNA) is known to be highly expressed in ventricles of the human heart. This sarcomeric protein is important for heart muscle contraction and its presence would not be expected in other non-muscle tissues and blood. In 1990, the gene for human cardiac

βMyHC was completely sequenced (Liew et al. 1990) and was comprised of 4 exons and 42 introns.

The method of reverse transcription polymerase chain reaction (RT-PCR) was used to determine whether this cardiac specific mRNA is also present in human blood. A pair of primers was designed; the forward primer (SEQ ID No. 3) was on the boundary of exons 21 and 22, and the reverse primer (SEQ ID No. 4) was on the boundary of exons 24 and 25. This region of mRNA is only present in pMyHC and is not found in the alpha-myosin heavy chain gene ( $\alpha$ MyHC).

A blood sample was first treated with lysing buffer and then undergone centrifuge. The resulting pellets were further processed with RT-PCR. RT-PCR was performed using the total blood cell RNA as a template. A nested PCR product was generated and used for sequencing. The sequencing results were subjected to BLAST and the identity of exons 21 to 25 was confirmed to be from \( \text{BMyHC} \) (Figure 1A).

Using the same method just described, two other tissue specific genes - amyloid precursor protein (APP, forward primer, SEQ ID No. 7; reverse primer, SEQ ID No. 8) found in the brain and associated with Alzheimer's disease, and adenomatous polyposis coli protein (APC) found in the colon and rectum and associated with colorectal cancer (Groden *et al.* 1991; Santoro and Groden 1997) - were also detected in the RNA extracted from human blood (Figure 1B).

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#### EXAMPLE 6

#### Multiple RT-PCR analysis on a drop of blood from a normal/diseased individual

A drop of blood was extracted to obtain RNA to carry out quantitative RT-PCR analysis. Specific primers for the insulin gene were designed: forward primer (5'-GCCCTCTGGGGACCTGAC-3', SEQ ID No. 1) of exon 1 and reverse primer (5'-CCCACCTGCAGGTCCTCT-3", SEQ ID No. 2) of exons 1 and 2 of insulin gene. Such reverse primer was obtained by deleting the intron between the

exons 1 and 2. Blood samples of 4 normal subjects were assayed. It was found that the insulin gene is expressed in the blood and the quantitative expression of the insulin gene in a drop of blood is influenced by fasting and non-fasting states of normal healthy subjects (Figure 2). This very low level of expression of the insulin gene reflects the phenotypic status of a person and strongly suggests that there is a physiological and pathological role for its expression, contrary to the basal or illegitimate theory of transcription suggested by Chelly *et al.* (1989) and Kimoto (1998).

Same quantitative RT-PCR analysis was performed using insulin specific primers on RNA samples extracted from a drop of blood from a normal healthy person, a person having late-onset diabetes (Type II) and a person having asymptomatic diabetes. It was found that the insulin gene is expressed differentially amongst subjects that are healthy, diagnosed as type II diabetic, and also in an asymptomatic preclinical patient (Figure 3).

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Similarly, specific primers for the atrial natriuretic factor (ANF) gene were designed (forward primer, SEQ ID No. 5; reverse primer, SEQ ID No. 6) and RT-PCR analysis was performed on a drop of blood. ANF is known to be highly expressed in heart tissue biopsies and in the plasma of heart failure patients. However, atrial natriuretic factor was observed to be expressed in the blood and the expression of the atrial natriuretic factor gene is significantly higher in the blood of patients with heart failure as compared to the blood of a normal control patient.

Specific primers for the zinc finger protein gene (ZFP, forward primer, SEQ ID No. 9; reverse primer, SEQ ID No. 10) were also designed and RT-PCR analysis was performed on a drop of blood. ZFP is known to be high in heart tissue biopsies of cardiac hypertrophy and heart failure patients. In the present study, the expression of ZFP was observed in the blood as well as differential expression levels of ZFP amongst the normal, diabetic and asymptomatic preclinical subjects (Figure 4); although neither of the non-normal subjects has been specifically diagnosed as

suffering from cardiac hypertrophy and/or heart failure, the higher expression levels of the ZFP gene in their blood may indicate that these subjects are headed in that general direction.

It was hypothesized that a housekeeping gene such as glyceraldehyde dehydrogenase (GADH) which is required and highly expressed in all cells would not be differentially expressed in the blood of normal vs. disease subjects. This hypothesis was confirmed by RT-PCR using GADH specific primers (Figure 4). Thus, GADH is useful as an internal control.

Standardized levels of insulin gene or ZFP gene expressed in a drop of blood were estimated using a housekeeping gene as an internal control relative to insulin or ZFP expressed (Figures 5A & 5B). The levels of insulin gene expressed in each fractionated cell from whole blood were also standardized and shown in Figure 5C.

#### **EXAMPLE 7**

#### Human blood cell cDNA library

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In order to further substantiate the present invention, differential screening of the human blood cell cDNA library was conducted. cDNA probes derived from human blood, adult heart or brain were respectively hybridized to the human blood cDNA library clones. As shown in Figure 7, more than 95% of the "positively" identified clones are identical between the blood and other tissue samples.

DNA sequencing of randomly selected clones from the human whole blood cell cDNA library was also performed. This allowed information regarding the cellular function of blood to be obtained concurrently with gene identification. More than 20,000 expressed sequence tags (ESTs) have been generated and characterized to date, 17.6% of which did not result in a statistically significant match to entries in the

GenBank databases and thus were designated as "Novel" ESTs. These results are summarized in Figure 7 together with the seven cellular functions related to percent distribution of known genes in blood and in the fetal heart.

From 20,000 ESTs, 1,800 have been identified as known genes which may not all appear in the hemapoietic system. For example, the insulin gene and the atrial natriuretic factor gene have not been detected in these 20,000 ESTs but their transcripts were detected in a drop of blood, strongly suggesting that all transcripts of the human genome can be detected by performing RT-PCR analysis on a drop of blood.

In addition, approximately 400 novel genes have been identified from the 20,000 ESTs characterized to date, and these will be subjected to full length sequencing and open reading frame alignment to reduce the actual number of novel ESTs prior to screening for disease markers.

Analysis of the approximately 6,283 ESTs which have known matches in the GenBank databases revealed that this dataset represents over 1,800 unique genes. These genes have been catalogued into seven cellular functions. Comparisons of this set of unique genes with ESTs derived from human brain, heart, lung and kidney demonstrated a greater than 50% overlap in expression (Table 1).

20 <u>TABLE 1</u>

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Overlap of Genes Expressed in Blood \*

	<u>Tissues</u>	ESTs**	Overlap in Blood	i
•	brain	134,000	60%	
25	heart	65,000	59%	
	lung	60,200	58%	
_	kidney 32	,300	54%	

\* Estimated from limited known genes of about 1,800 as derived from the database of 6,297 ESTs from human blood cell library.

\*\* Obtained from the National Centre of Biotechnology Information (NCBI), U.S.A.

#### **EXAMPLE 8**

#### Blood cell ESTs

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The results from the differential screening clearly indicate that the transcripts expressed in the whole blood are reflective of genes expressed in all cells and tissues of the body. More than 95% of detectable spots were identical from two different tissues. The remaining 5% of spots may represent cell- or tissue-specific transcripts; however, results obtained from partial sequencing to generate ESTs of these clones revealed most of them not to be cell- or tissue-specific transcripts. Therefore, the negative spots are postulated to be reflective of low abundance transcripts in the tissue from which the cDNA probes were derived.

An alternative approach that was employed to identify transcripts expressed at low levels is the large-scale generation of expressed sequence tags (ESTs). There is substantial evidence regarding the efficiency of this technology to detect previously characterized (known) and uncharacterized (unknown or novel) genes expressed in the cardiovascular system (Hwang & Dempsey et al.. 1997). In the present invention, 20,000 ESTs have been produced from a human blood cell cDNA library and resulted in the identification of approximately 1,800 unique known genes (Table 2)

In the most recent GenBank release, analysis of more than 300,000 ESTs in the database (dbESTs) generated more than 48,000 gene clusters which are thought to represent approximately 50% of the genes in the human genome. Only 4,800 of the dbESTs are blood-derived. In the present invention, 20,000 ESTs have

been obtained to date from a human blood cDNA library, which provides the world's most informative database with respect to blood cell transcripts. From the limited amount of information generated so far (i.e. 1,800 unique genes), it has already been determined that more than 50% of the transcripts are found in other cells or tissues of the human body (Table 2). Thus, it is expected that by increasing the number of ESTs generated, more genes will be identified that have an overlap in expression between the blood and other tissues. Furthermore, the transcripts for several genes which are known to have tissue-restricted patterns of expression (i.e. βMyHC, APP, APC, ANF, ZFP) have also been demonstrated to be present in blood.

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Most recently, a cDNA library of human hematopoietic progenitor stem cells has also been constructed. From the limited set of 1,000 ESTs, there are at least 200 known genes that are shared with other tissue related genes (Claudio *et al.* 1998).

Table 2 demonstrates the expression of known genes of specific tissues in blood cells. Previously, only the presence of "housekeeping" genes would have been expected. Additionally, the presence of at least 25 of the currently known 500 genes corresponding to molecular drug targets was detected. These molecular drug targets are used in the treatment of a variety of diseases which involve inflammation, renal and cardiovascular function, neoplastic disease, immunomodulation and viral infection (Drews & Ryser, 1997). It is expected that additional novel ESTs will represent future molecular drug targets.

# TABLE 2

# Comparison of 1,800 Unique Genes Identified in the Blood Cell cDNA Library to Genes Previously Identified in Specific Tissues

Gene Identification	No. of ESTs	Accession No.		+1	Tiss	ue D	istr	ibut	ion			
			Bl	T Br	н		L					
100 kDa coactivator	2	U22055		+		-		+	Ì			
10kD protein (BC10)		AF053470		+	+	├	+	+			<del></del>	
14-3-3 epsilon		U54778		+-	+	├	-	+	<del> </del>	•		
14-3-3 protein	<u>-</u> -	U28964		+	+	┢	+	<del> </del>	<del></del>			
15 kDa selenoprotein	1	AF051894		+	+	<del>                                     </del>	-	+				
(SEP15) 1-phosphatidylinositol-4- phosphate 5-kinase soform C	1	S78798				-					· · · · · ·	
23 kD highly basic protein	21.	X56932	+	+-	+	+	+	+.	<del>                                     </del>			
2-5A-dependent RNase	. 1	L10381				┼	-	┼				
2'-5'oligoadenylate synthetase 2 (OAS2)	4	M87284	В	<del>                                     </del>	-			-				
26S proteasome subunit 11	1	AF086708		+-	<del>                                     </del>	$\vdash$		$t^-$	<u> </u>			
36 kDa phosphothyrosine protein	. 2	AJ223280	T		+							•
3-7 gene product (non- exact 86%aa)	1	D64159						1.			•	
3-phosphoglycerate dehydrogenase (PGAD)	1	AF006043	T	+	+			+				
3-prime-phosphoadenosine 5-prime-phosphosulfate synthase 1 (PAPSS1)	2	U53447	+	+	+	+	-	+				
46kd mannose 6- phosphate receptor (MPR46) (low match)	1	X56257										
5-aminoimidazole-4- carboxamide ribonucleotide transformylase	1	D89976										
5'-nucleotidase	3	D38524	T	+	T .	П	+					
6-phosphofructo-2- kinase/fructose-2,6- biphosphatase 4 (PFKFB4)	. <b>1</b>	D49818		+						-		
5-phosphofructo-2- kinase/fructose-2,6- bisphosphatase (PF2K)	1	AF041829									-	
71 kd heat shock cognate protein hsc70	23	Y00371										
76 kDa membrane protein (P76)	2	U81006		+	+	+	+	+				
B-oxoguanine DNA glycosylase (OGG1)	1	U96710	В				+	+				
a disintegrin and netalloprotease domain 10 ADAM10)	1	AF009615	. <b>1</b>				+					
a disintegrin and metalloprotease domain 8 (ADAM8)	1	D26579	В	+								
A kinase anchor protein 95 (AKAP95)	2	Y11997	B, T activated		+			+				
A kinase anchor protein, 149kD (AKAP149)	. 2	X97335		+	+	+		+				

								•	·
A4 differentiation-	1	U93305							, .
dependent protein (A4), triple LIM domain protein					٠				
(LMO6), and								i	ļ.
synaptophysin (SYP);			,		l		j		
calcium channel alpha-1						1			
subunit (CACNA1F)	,			,	1		·	1	
ABL and putative M8604	1	U07561							
Met protein					]			L	
Absent in melanoma 1	1	U83115	+	+				+	
(AIM1)							<u> </u>	<u> </u>	
accessory proteins BAP31/BAP29	2	Z31696	i i	+	+		1	-	
(DXS1357E)	14 m		i .		ļ				
acetyl-Coenzyme A	2	X12966	+	+	+	+	+	+	
acyltransferase		X12500		ľ	•	, i	'	'	
(peroxisomal 3-oxoacyl-		·	i					ł	1
Coenzyme A thiolase)						ĺ		٠.	
(ACAA)						·	l		
acetyl-Coenzyme A	1	D88152	Tlymphoma	+	+				· · · · · · · · · · · · · · · · · · ·
transporter (ACATN)					·				
acidic 82 kDa protein	4	U15552				1		l	
acidic protein rich in	1	Y07969	В	+	+		+	+	
leucines (SSP29)							<u> </u>	<u> </u>	
Aconitase 2, mitochondrial	1 .	U80040	+	+	+	+		+	
(ACO2)		AFDEDECO	ļ			ļ	ļ		
actin binding protein MAYVEN	· 1	AF059569			ĺ		]	1	
actin, beta (ACTB)	158	X04098	Т, В	+	+	<del></del>	+	-	
1			1, 5		<u> </u>	<u> </u>	ļ <u>.</u>		
actin, beta (ACTB) (non- exact, low match 73%)	1	M10277				1			,
actin, gamma (low score)	1	K00791			ļ	├		-	·
actin, gamma 1 (ACTG1)	4	X04098	+	+	+	+	+	+	high in many libraries
actin-binding LIM protein	- 4	D31883		+	+	+		+	
(ABLIM)					<u>.                                    </u>				
Actinin, alpha 1 (ACTN1)	8	M95178		+	+	.+		+	
actinin, alpha 4 (ACTN4)	1	D89980		+	+		+		
activated p21cdc42Hs	1	L13738	В	+				+	
kinase (ACK)		•							
activated RNA polymerase	1	X79805	. +	+	+	+		+	
Il transcription cofactor 4									
(PC4)		VEEL				<u> </u>	<u> </u>	<u> </u>	
activating transcription factor 1 (ATF1).	1	X55544			+				
activating transcription	1	X15875		+	+		+		ļ
factor 2 (ATF2)	•	713073		. "			T .		
activating transcription	2	M86842	<del>                                     </del>		$\vdash$		+	+	<del>                                     </del>
factor 4 (tax-responsive	-		1 · 1		l ·			·	
enhancer element B67)		-							
(ATF4)	•		] . [				<u> </u>		
					+	+		+	
active BCR-related gene	1	U01147	+	+.	<b>.</b> ▼			1	1
active BCR-related gene (ABR)			+	+.					
active BCR-related gene (ABR) acyl-CoA oxidase (AOX)	1	U03254	+	+.					
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A				+.					
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C-	1	U03254	+	+.					
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM)	1 2	U03254 M16827				- -			
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A	1	U03254	+	+.		+	+	+	
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long	1 2	U03254 M16827				- -	+	+	
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A	2 3	U03254 M16827				- -	+	+	
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH)	3	U03254 M16827 D43682	+		+	- -			
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase	2 3	U03254 M16827 D43682	+		+	- -			
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH) adaptin, delta (ADTD)	3 3 2	U03254 M16827 D43682 M62840 U91930	+	•	+	- -	+		
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH) adaptin, delta (ADTD) adaptin, delta (ADTD) (non-exact 59%)	3	U03254 M16827 D43682 M62840	+	•	+	- -	+		
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH) adaptin, delta (ADTD)	3 3 2	U03254 M16827 D43682 M62840 U91930	+	•	+	- -	+		
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH) adaptin, delta (ADTD) adaptin, delta (ADTD) (non-exact 59%) adaptin, gamma (ADTG)	3 3 2 1	U03254 M16827 D43682 M62840 U91930 AC005328 Y12226	+	+	+ +	+	+	+	
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH) adaptin, delta (ADTD) adaptin, delta (ADTD) (non-exact 59%)	1 2 3 3 2 1	U03254 M16827 D43682 M62840 U91930 AC005328	+	+	+ +	+	+	+	
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH) adaptin, delta (ADTD) adaptin, delta (ADTD) (non-exact 59%) adaptor complex sigma3B	3 3 2 1	U03254 M16827 D43682 M62840 U91930 AC005328 Y12226	+	+	+ +	+	+	+	
active BCR-related gene (ABR) acyl-CoA oxidase (AOX) acyl-Coenzyme A dehydrogenase, C-4 to C- 12 straight chain (ACADM) acyl-Coenzyme A dehydrogenase, very long chain (ACADVL) acyloxyacyl hydrolase (neutrophil) (AOAH) adaptin, delta (ADTD) (non-exact 59%) adaptin, gamma (ADTG) adaptor complex sigma3B (AP3S3)	1 2 3 3 2 1	U03254 M16827 D43682 M62840 U91930 AC005328 Y12226 X99459	+	+	+ +	+	+	+	

adducin 1 (alpha) (add1)	3	L29296	T .+	+	+	+	r ·	+	<u> </u>			
adducin 3 (gamma) (ADD3)	. 3	U37122	- в. w	+	+	<del>                                     </del>	+	+	<del></del>	-		
adenine nucleotide	2	M57424		+	+	-	+			<u> </u>		
translocator 2 (fibroblast) (ANT2)	~ .	11107424		<u> </u>	,	ľ						
adenine nucleotide translocator 2 (fibroblast)	1	J02683			٠.							·
(ANT2) (non-exact 81%) adenine nucleotide translocator 2 (fibroblast)	1	J02683										<u> </u>
(ANT2) (non-exact, 79%)	1	J02683		-		_	_					
translocator 2 (fibroblast) (ANT2) (non-exact, 86%)	,											
adenine nucleotide translocator 3 (liver) (ANT3)	, 3	J03592		<b>†</b>	+	,	+	*				ì
adenosine deaminase, RNA-specific (ADAR)	6	U18121		+	+		+					
adenylate cyclase 3 (ADCY3)	2	AF033861		+	+	+	+	+				
adenylate cyclase 7 (ADCY7)		D25538		·		-						`
adenylate kinase 2 (AK2)	2	U39945		+	+		+	+				
adenylate kinase 3 (AK3) (non-exact, 67%) adenylyl cyclase-	1 28	X60673 M98474										
associated protein (CAP)		1			+		+					
adipose differentiation- related protein; adipophilin (ADFP)	1	X97324			+		+	+				-
ADP-ribosylation factor 1 (ARF1)	13	M84326		+	+		+	+				
ADP-ribosylation factor 3 (ARF3)	2	M33384		+	+		+					
ADP-ribosylation factor 4 (ARF4)	1	M36341	Tlymphoma	+	+			+				
ADP-ribosylation factor 5 (ARF5)	1	M57567			+	+	+	+				
ADP-ribosylation factor domain protein 1, 64kD (ARFD1)	1	L04510		+		,						
ADP-ribosyltransferase (NAD+; poly (ADP-ribose) polymerase) (ADPRT)	4	M32721	+	+	+	+	+	+	,		•	
adrenergic, beta, receptor kinase 1 (ADRBK1)	2	X61157	В	+			+					
adrenoleukodystrophy-like 1 (ALDL1)	1	AJ000327								•		
AE-binding protein 1 (AEBP1) (non-exact, 62%)	1	D86479										
A-gamma-globin	1	V00514	<u> </u>	ļ		lacksquare		Ш				
A-gamma-globin (chromosome 11 allele)	1	J00176		-	·			$\vdash$	<del></del> .			
agammaglobulinaemia tyrosine kinase (ATK)	1	U78027									<del></del>	$\dashv$
AHNAK nucleoprotein (desmoyokin) (AHNAK)	4	M80899	+	+	+	+		+				$\dashv$
alanyl (membrane) aminopeptidase	1	X13276			+		+					
(aminopeptidase N, aminopeptidase M, microsomal aminopeptidase, CD13,												
p150) (ANPEP)												
alcohol dehydrogenase 5 (class III), chi polypeptide (ADH5)	1	M29872										
aldehyde dehydrogenase 1, soluble (ALDH1)	1	AF003341		+		:	+	+				
.,		<del></del>	<u></u>			1	I					

								٠.	
aldehyde dehydrogenase 10 (fatty aldehyde dehydrogenase) (ALDH10)	2	U75 <b>286</b>							
aldehyde reductase 1 (low Km aldose reductase) (ALDR1)	3	J04795	В	+	+	+	+		
aldo-keto reductase family 1, member A1 (aldehyde reductase) (AKR1A1)	2	J04794	В	+	+		+		
aldo-keto reductase family 1, member C3 (3-alpha hydroxysteroid	, <b>1</b>	D17793		+	+ :	+		+	
dehydrogenase, type II) (AKR1C3)	1. 1. 1		,						
aldo-keto reductase family 7, member A2 (aflatoxin aldehyde reductase) (AKR7A2)	1	Y16675		+	+		+	+	
aldolase A, fructose- bisphosphate (ALDOA)		X12447		+	+		+		
aldolase C, fructose- bisphosphate (ALDOC)	2	X05196		+	+		+	1	
alkaline phosphatase, liver/bone/kidney (ALPL) ALL-1 (=L04731;L04284	4 ·	4502062 Z69780		ļ					
HRX)	1	D55649		+			+		
isozyme alpha thalassemia/mental	3	U75653	+	+	+	+		+	
retardation syndrome X- linked (ATRX)		Z11711		ļ				ļ	
alpha-2 macroglobulin alpha-2-globin	2	V00516				_			
alpha-2-macroglobulin receptor/lipoprotein receptor protein (A2MR/LRP)	1	U06985							
alpha-polypeptide of N- acetyl-alpha- glucosaminidase (HEXA)	1	M13520							
alpha-spectrin	1	X86901							· · · · · · · · · · · · · · · · · · ·
alpha-subunit of Gi2 a (GTP-binding signal transduction protein)	1	X07854							
aminin receptor 1 (67kD); Ribosomal protein SA (LAMR1)	2	J03799	T	+	+		+	+	
aminolevulinate, delta-, dehydratase (ALAD)	1	X64467		+					·
amino-terminal enhancer of split (AES)	2	X73358	+ B	+	+	+	+	+	
amino-terminal enhancer of split (AES)  AMP deaminase isoform L	- 8 - 8	M91029		+	<u>*</u>		Ľ	+	
(AMPD2) amphiphysin (Stiff-Mann	1	U07616	В	<u> </u>			_		
syndrome with breast cancer 128kD autoantigen) (AMPH)									
amphiphysin (Stiff-Mann syndrome with breast cancer 128kD autoantigen) (AMPH)(non-exact, 68%)	1	U07616							·
amphiphysin (Stiff-Mann syndrome with breast cancer 128kD autoantigen) (AMPH)(non-exact, 68%)		U07616		·					
amphiphysin II	4	U87558		+	+		+		
amphiphysin II (67%aa amphiphysin?)	1	AF068915							
amphiphysin II (non-exact 69% aa)	1	AF001383	<u></u>	<u>L</u>	<u> </u>	<u> </u>		<u> </u>	

amphiphysin-like (AMPHL)	1	U68485	· <del> </del>	+	+	_			T :
amphiphysin-like (AMPHL)	<del></del>	AF068918				<u> </u>		-	-
(low match)									
AMY-1	. 1	D50692	В, Т				+	·	
amyloid beta (A4) precursor protein-binding, family B, member 1 (Fe65)		L77864		+	+	+		+	
(APBB1)		10704							
arnyloid beta (A4) precursor-like protein 2 (APLP2)	6	L27631	T lymphoma	+	+		_	+	
ankyrin 3, node of Ranvier ankyrin G) (ANK) (non- exact, 50%)	1	U43965	,						
ANX1)	1	XQ5908			+	, . <b>+</b>		+	
annexin II	1	D28364							
annexin II (lipocortin II; calpactin I, heavy polypeptide) (ANX2)	7	D00017	+	+	+	+	+	+	high in many librarie
annexin IV (placental anticoagulant protein II) (ANX4)	1	M19383		+	+	+	+	+	
annexin V (endonexin II) (ANX5)	2	M21731		+	+	+		+	
annexin V (endonexin II) (ANXV)	1.	M19384		+	. +	+		+	
annexin VI (p68) (ANX6)	6	Y00097		+	+	+		+	
annexin VII (synexin) (ANX7)	1	J04543		+ .	+	+		+	
antigen identified by monoclonal antibodies 12E7, F21 and O13 (MIC2)	2	M16279		+	+	+		+	
antigen identified by monoclonal antibodies 4F2, TRA1.10, TROP4, and T43 (MDU1)	3	J02939		+	+	+	+	+	
antigen TQ1	1	:	<u> </u>			<del>                                     </del>		├	<del>                                     </del>
anti-oxidant protein 2 (non- selenium glutathione peroxidase, acidic calcium- independent phospholipase	1	D14662		+	+	+	+	+	
A2) (KIAA0106) APEX nuclease	5	X66133		+	+		+	+	
(multifunctional DNA repair enzyme) (APEX)								,	
Apolipoprotein L (APOL) (59%aa)	1	Z82215	·					<u> </u>	
apoptosis inhibitor 1 (API1)	1	L49431.		+	+	+	+	+	<u> </u>
apoptosis inhibitor 4 (survivin) (API4)	<b>1</b>	U75285	B, W	+	+		+		
apoptosis inhibitor 5 (API5)	1	U83857	Tlymphoma	+			+	ſ	
apoptosis specific protein (ASP)	1	Y11588	В	+			+	+	
apoptotic protease activating factor (APAF1)	1	AF013263	В	+	+		+		
aquaporin 3 (AQP3)	1	AB001325	1				+		
aquaponn 9 (AQP9)	7	AB008775	Tactivated				+	Γ	
arachidonate 12- ipoxygenase (ALOX12)	<del>- 1</del>	M58704					+	+	
arachidonate 5- lipoxygenase-activating protein (ALOX5AP)	3	X52195	+	+		+		+	
anadne homolog (ARI)	1	AJ009771	+ .	+	+	+		+	
ariadne-2 (D. melanogaster) homolog (all-trans retinoic acid inducible RING finger.) (ARI2)	1	AF099149	+	+	+	+		+	

W O 00/40/49								•	
ARP1 (actin-related protein 1, yeast) homolog A (centractin alpha)	1	X82206		+			+		
(ACTR1A) ARP2 (actin-related protein	9	AF006082		. +	+		+	+	
2, yeast) homolog (ACTR2) ARP2/3 protein compex	5	AF006085	T activated.	+	·	<u> </u>	+	,	
subunit 34 (ARC34)	·		W	+	+	<u> </u>	L		
Arp2/3 protein compex subunit p41 (ARC41)	6	AF006084	monocyte stimulated		_		+		
Arp2/3 protein compex subunit p41 (ARC41)) (low match)	1	AF006084							·
Arp2/3 protein complex subunit p16 (ARC16)	20	AF017807		+	+		+	+	
Arp2/3 protein complex subunit p20 (ARC20)	, 2	AF006087	· p	+	+		+	+	
Arp2/3 protein complex subunit p21(ARC21)	3	AF006086	W				+	+	
ARP3 (actin-related protein 3, yeast) homolog (ACTR3)	11	AF006083	w		+		+	+	
arrestin, beta 2 (ARRB2)	1	AF106941	B, T, W	+	+		+		
arsA (bacterial) arsenite transporter, ATP-binding, homolog 1 (ASNA1)		AF047469	В, Т	+			+		
aryl hydrocarbon receptor nuclear translocator-like (ARNTL)	2	AF044288	В	+	+		+		
aryl hydrocarbon receptor- interacting protein (AIP)	1	U31913	+	+	+	+		+	
arylsulfatase A (ARSA)	1	X52151	Tactivated	+	-		+		
asialoglycoprotein receptor 2 (ASGR2)	1	M11025			•		+	+	
asparaginyl-tRNA synthetase (NARS)	3	D84273		+	+		+		
aspartyl-tRNA synthetase (DARS)	1	J05032	В	+	+		+		
ataxia telangiectasia mutated (includes complementation groups A, C and D) (ATM)	<b>1</b>	U82828	В, Т		+		+		
ataxin-2-like protein A2LP (A2LG)	. 1	AF034373	B, T activated	+	+			+	
ATF6	1	AF005887	00	+		$\vdash$	+		
ATP binding cassette transporter (ABCR) (non-exact 80%)	1	U88667							
ATP synthase (F1-ATPase) alpha subunit, mitochondrial	7	X59066							
ATP synthase beta subunit gene	1	M19482							
ATP synthase, H+ transporting, mitochondnal F0 complex, subunit b, isoform 1 (ATP5F1)	1	X60221	+	+	+	+		+	
ATP synthase, H+ transporting, mitochondrial F0 complex, subunit c (subunit 9), isoform 1	1 -	X69907	T activated	+	+		+	+	
(ATP5G1) ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit,	3	D14710				-			
isoform 1, cardiac muscle (ATP5A1)		•							•
ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit, isoform 1, cardiac muscle (ATP5A1) (low match)	1	D14710							

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ATP synthase, H+	2	M27132		:					
transporting, mitochondrial	· ]		•						
F1 complex, beta	·							.	9
polypeptide (ATP5B)		<u> </u>							
ATP synthase, H+	7	D16563	. W	+	+	+	+		
transporting, mitochondrial									
F1 complex, gamma	,		l l	- 1		.			i - i
polypeptide 1 (ATP5C1)		*		,			· .		
ATP synthase, H+	1	AF092124	+	+	+	+	+	+	
transporting, mitochondrial		;							· 1
F1F0, subunit g (ATP5JG)									
ATP/GTP-binding protein	2	U73524	. +	+	+	+		+	
(HEAB)	•								` <u>.</u>
ATPase, Ca++	5	Z69881		+					
transporting, ubiquitous	•		l i					-	1
(ATP2A3)	. , ]		J		٠.				
ATPase, H+ transporting,	2	D89052	+	+	• +	+	•	+	
lysosomal (vacuolar proton			1	•					
pump) 21kD (ATP6F)									· · ·
ATPase, H+ transporting,	1	X76228	I	+	+	+		+	
livsosomal (vacuolar proton	_		1				ŀ	· ·	. 1
pump) 31kD (ATP6E)		*	·			L	L	L	
ATPase, H+ transporting,	5	X69151		+	+	+		+	
livsosomal (vacuolar proton		· · · · · · · · · · · · · · · · · · ·	1 1	•			l ·	l .	• • •
pump) 42kD; Vacuolar						1	ŀ	l	
proton-ATPase.			1		١.	i	. 1	l	·
subunit C; V-ATPase,						1 .	l	l .	
subunit C (ATP6D)			[ · ]		L·_	L	<u>L</u>	<u> </u>	
ATPase, H+ transporting.	3	L09235		+	I	+			
Ivsosomal (vacuolar proton	· .	_	j l		l	ŀ	ł	١ .	j l
pump), alpha polypeptide,			i		ļ.	ł	l		
70kD, isoform 1 (ATP6A1)						L	L	L_	
ATPase, H+ transporting,	6	X62949	+-	+	+	+		+	
lysosomal (vacuolar proton			]		1	ľ	l		,
pump), beta polypeptide.					ł	l	i .	1	l i
56/58kD, isoform 2					l		ŀ		
56/58kD, isoform 2 (ATP6B2)									·
56/58kD, isoform 2 (ATP6B2)	2	AF038954	+	+	+	+		+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton	2	AF038954	+	+	+	+		+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton	2 .	AF038954	+	+	+	+		+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting,	2	AF038954 D16469	+	+	+	+		+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton			+						high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1)			+						high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50			+						high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50	- "1	D16469	+	+	+	+		+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1)	- "1	D16469	+	+	+	+		+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50)	- "1	D16469	+	+	+	+		+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated)	1	D16469 AF027302	+	+	+	+		+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette	1	D16469 AF027302	+	+	+	+		+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial)	1	D16469 AF027302	+ + T lymphoma	+	+	+	+	+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1	1	D16469  AF027302  AF047690	+ + T lymphoma	+	+	+	+	+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase	1	D16469  AF027302  AF047690	+ T lymphoma T activated	+	+	+	+	+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528)	1 1 1 2	D16469  AF027302  AF047690  AJ010840  L05425		+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528)	1	D16469  AF027302  AF047690  AJ010840		+	+	+	+	+	high in testis
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) (non-exact 84%)	1 1 2 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) (non-exact 84%) autoantigen (Hs.75682)	1 1 2 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474		+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) (non-exact 84%)	1 1 2 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B	1 1 2 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1)	1 1 2 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy	1 1 2 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17)	1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3	1 1 2 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.7558) autoantigen (Hs.7558) autoantigen (Hs.7558) BAIT-associated protein 3 (BAIAP3) (non-exact 54%)	1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) (non-exact 84%) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-	1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1)	1 1 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1) basic leucine zipper	1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.7558) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1)	1 1 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.7558) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen (Hs.75682) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1)	1 1 1 1 1 1 1 1 2	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896  U79751	T activated B	+ + +	+ + +	+		+ + + + + + + + + + + + + + + + + + + +	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.7558) autoantigen (Hs.7558) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen (Hs.75682) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1) basic transcription factor 3	1 1 1 1 1 1 1 1	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896	T activated	+	+	+	+	+	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1) basic transcription factor 3 (BTF3)	1 1 2 1 1 1 1 1 2 5	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896  U79751  X74070	T activated B	+	+ + +	+	+	+ + + + + + + + + + + + + + + + + + + +	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.7558) autoantigen (Hs.7558) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen (Hs.75682) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1) basic transcription factor 3	1 1 1 1 1 1 1 1 2	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896  U79751	T activated B	+ + +	+ + +	+		+ + + + + + + + + + + + + + + + + + + +	
56/58kD, isoform 2 (ATP6B2) ATPase, H+ transporting, lysosomal (vacuolar proton pump), member J (ATP6J) ATPase, H+ transporting, lysosomal (vacuolar proton pump), subunit 1 (ATP6S1) ATP-binding cassette 50 (TNF-alpha stimulated) (ABC50) ATP-binding cassette protein M-ABC1 (mitochondrial) ATP-dependent RNA helicase autoantigen (Hs.75528) autoantigen (Hs.75528) autoantigen (Hs.75682) autoantigen (Hs.75682) autoantigen La/SS-B axin (AXIN1) axonemal dynein heavy chain (DNAH17) BAI1-associated protein 3 (BAIAP3) (non-exact 54%) basement membrane-induced gene (ICB1) basic leucine zipper nuclear factor 1 (JEM-1) (BLZF1) basic transcription factor 3 (BTF3)	1 1 2 1 1 1 1 1 2 5	D16469  AF027302  AF047690  AJ010840  L05425  L05425  U17474  Z35127  AF009674  AJ000522  AB017111  AF044896  U79751  X74070	T activated B	+	+ + +	+	+	+ + + + + + + + + + + + + + + + + + + +	

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B-cell CLL/lymphoma 6 (zinc finger protein 51) (BCL6)	1	U00115		+	+			-	
B-cell translocation gene 1, anti-proliferative (BTG)	1	X61123			+	•		+	
BCL2/adenovirus E1B 19kD-interacting protein 2 (BNIP2)	1	U15173	В	+			+	+	
BCL2/adenovirus E1B 19kD-interacting protein 3- like (BNIP3L)	2	AF067396		+	+	+		+	
beclin 1 (coiled-coil, myosin-like BCL2- interacting protein)	1	AF077301	В	+	+		+		
(BECN1) beta-1,2-N- acetylglucosaminyltransfer	2	U15128							
ase II (MGAT2) beta-2-microglobulin (B2M)	63	S82297	+	+	+	+	+	+	high in invasive
beta-hexosaminidase alpha chain (HEXA)	1	M16411					7	:	prostate tunior
beta-tubulin	7	V00599	+	+	+	+	+	+	high in many libraries
beta-tubulin (non-exact, 76%)	1	AF070561	· ·						
beta-tubulin, pseudogene	1	J00315							
BING4	1	297184							
biotinidase (BTD) (non-eact 62%)	1	U03274							
biotinidase (BTD) (non- exact 70%)	1	U03274							
biotinidase (BTD) (non- exact, 56%)	· 1	U03274	• .				<u>.                                    </u>		
PRECURSOR	1	P43251		+			+		
biphenyl hydrolase-like (serine hydrolase) (BPHL)	1	X81372 D21878		•			+	_	•
bone marrow stromal cell antigen 1 (BST1)									
box-dependent myc- interacting protein isoform BIN1-10 (BIN1)	1	AF043900			٠.				
box-dependent myc- interacting protein isoform BIN1-10 (BIN1) (non-exact, 64%)	· .	AF043900							
brain my047 protein	1	AF063605	T	+	+	<u> </u>	+		<u> </u>
branched chain keto acid dehydrogenase E1, alpha polypeptide (maple syrup	3	Z14093	Т	+	+		+		
BRCA1 associated protein- 1 (ubiquitin carboxy- terminal hydrolase) (BAP1)	1	D87462	+	+	+	+			
BRCA1, Rho7 and vati	1	L78833							
breakpoint cluster region protein, uterine leiomyoma, 1; barrier to autointegration factor (BCRP1)	2	AF044773		+	+				
breakpoint cluster region protein, uterine leiomyoma, 2 (BCRP2)	2	AF044774 U92715		+	+		+	+	
breast cancer anti-estrogen resistance 3 (BCAR3) (non-exact 73%) bromodomain-containing	2	M91585		+			_		
protein, 140kD (peregrin) (BR140)									
Bruton's agammaglobulinemia tyrosine kinase (Btk)	f	U13424							

		·							
Bruton's tyrosine kinase (BTK)	1	U78027							
Bruton's tyrosine kinase (BTK), alpha-D- galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3)	1	U78027	· .						
BS4	1	AF108083							
BTG2 (BTG2)	6	Y09943	+	+	+	· +		+	
BTK region clone ftp	1	U78027	+	+	+	+		+	
BTK region clone ftp-3	1	U01923	<del></del>	+	+		+		
BUB3 (budding uninhibited	4	AF053304	+	+	+	+		+	
by benzimidazoles 3, yeast) homolog (BUB3)									
Survice response factor 1 (EGF-response factor 1) (BRF1)	<b>2</b> .1	X₹9067		d.	4	Ta.		+	
butyrophilin (BTF1)	7	U90543	•	+	+		+		
butyrophilin like receptor	1	AB020625.1							
CAG repeat containing (CTG4A)	2	U80744		+	+				
CAGH32	. 2	U80743		+	+		+		
calcium channel, voltage- dependent, L type, alpha 1D subunit (CACNA1D)	1	M83566							
(low match)		AF069765		+	+	+	<u> </u>	+	<u> </u>
dependent protein kinase (CaM kinase) II gamma (CAMK2G)	· •	AF009705			Ť	Ť			
calcium/calmodulin- dependent protein kinase kinase (KIAA0787)	. 1	AF101264	В	+	+		+		
calmodulin (=M19311)	7	D45887							
calmodulin 1 (phosphorylase kinase, delta) (CALM1)	6	M27319	В	+	+		+	+	
calnexin (CANX)	3	M94859	T	+			+	+	
calpain, large polypeptide L1 (CAPN1)	5	X04366		+	+		+	+	
calpain, large polypeptide L2 (CANP2)	5	M23254		+	+				
calpain, small polypeptide (CAPN4)	1	X04106 D16217		+	+	Ŀ	+	+	· .
calpastatin (CAST)	3			↓			<u> </u>	L.	
Calponin 2	2	D83735		+.		+	<u> </u>	+	
calponin 2 (CNN2)	1	D83735	B, T	+			+	L	
calponin 2 (CNN2) (low score)	· · · · · · · · · · · · · · · · · · ·	D83735		ļ	<u> </u>			L	
calumenin (CALU)	3	AF013759	В		+		+	+	
cAMP response element- binding protein CRE-Bpa (H_GS165L15.1)	4	L05912							
cAMP-dependent protein kinase type II (Ht31)	1	M90360					,		
canicular multispecific organic anion transporter (CMOAT2)	1	AF009670				+	+	+	
capping protein (actin filament) muscle Z-line, alpha 1 (CAPZA1)	6	U56637	В, Т		+			+	
capping protein (actin filament) muscle Z-line, alpha 2 (CAPZA2)	2	U03269	В	+	_				
capping protein (actin filament) muscle Z-line, beta (CAPZB)	1	U03271	+	+	+	+		+	

									<u> </u>
capping protein (actin filament), gelsolin-like (CAPG)	8	M94345	. +	+		. +		+	
carbamoyl-phosphate synthetase 2, aspartate transcarbamylase, and	1	D78586	+	+	+	+		+	
dihydroorotase (CAD) carbonic anhydrase V,	1	L19297		+			+		
mitochondrial (CA5) carboxypeptidase D (CPD)	3	U65090	В	+	+ .			-	
camitine/acylcamitine	1	Y10319		+	+	-	+		
translocase (CACT) Cas-Br-M (murine)	2	X57110					+		
ecotropic retroviral transforming sequence		73/110					·		
(cbl) casein kinase 1, alpha 1	<del>- 1</del>	L37042	+	+	+	+		+	
(CSNK1A1) casein kinase 2, alpha 1	2	M55265	В	+			+	+	
polypeptide (CSNK2A1) casein kinase I gamma 3L	1	AF049090.1				ļ	H		
(CSNK1G3L) casein kinase II alpha	1	X69951	•	ļ		$\vdash$	$\vdash$		
subunit(=S72393)	<del></del>	AFRIFAER	· · · · · · · · · · · · · · · · · · ·	+.	+	+	+	+	
CASP8 and FADD-like apoptosis regulator (CFLAR)	4	AF015450			_			_	
caspase 1, apoptosis- related cysteine protease (interleukin 1, beta, convertase) (CASP1)		U13697	+		-	+			
caspase 10, apoptosis- related cysteine proteas (CASP10)	<del></del>	U60519	B, T activ		1		+		
caspase 3, apoptosis- related cysteine protease (CASP3)	3	U13737	В, Т	+	+	+	+		
caspase 4, apoptosis- related cysteine protease (CASP4)	6	U25804	+	+	+	+		*	
caspase 5, apoptosis- related cysteine protease (CASP5)	1	U28015			+				
caspase 8, apoptosis- related cysteine protease (CASP8)	2	X98173		+		+		+	
caspase 9, apoptosis- related cysteine protease (CASP9)	1	U56390	В			+	+		
catalase (CAT)	5	X04076	В	+	+		+		
catechol-O- methyltransferase (COMT)	1	M65213		+	+		+		
catenin (cadherin- associated protein), alpha 1 (102kD) (CTNNA1)	6	D14705		+	+				
cathelicidin antimicrobial peptide (CAMP)	1	X89658	В						
cathepsin B (CTSB)	4 .	L16510			+		+	+	
cathepsin C (CTSC)	3	U79415		+	+	Ŧ		+	
cathepsin D (lysosomal aspartyl protease) (CTSD)	4	M11233		*	+		+		
cathepsin E (CTSE)	1	J05036				Ŀ	+		
cathepsin G (CTSG)	1	M16117	T, W		+		Ļ		·
cathepsin S (CTSS)	34	M86553	B, Monocyt lym	e stim		1, T		+	· .
cathepsin W (lymphopain) (CTSW)	4	AF013611						+	
CBF1 interacting corepressor CIR (=U03644 recepin)	1	AF098297							

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CCAAT/enhancer binding protein (C/EBP), alpha	3	X87248		: +	+	+	-	+ -	
CCAAT/enhancer binding protein (C/EBP), delta (CEBPB)	1	S63168			+	·	+	+	
CCAAT-box-binding transcription factor (CBF2)	2	M37197 .	Tlymphoma			+	+		
CCR5 receptor (CCR5)	1	AF011504							
CD14 antigen (CD14)	11	M86511	+	+	+	+		+	
CD18 (=M95293)	4	X64071							
CD1C antigen, c polypeptide (CD1C)	2	M28827						+	
CD2 antigen (cytoplasmic tail)-binding protein 2 (CD2BP2)	1	AF104222							i .
CD2 antigen (p50), sheep red blood cell receptor (CD2)	4	M14362	+	_	+	+		+	
CD2 cytoplasmic tail- binding protein 1 (CD2BP1)	2	AF038602			·		+		
CD20 antigen (CD20)	1	X12530 X07203			<del> </del>	ļ	<u> </u>	<u> </u>	
CD20 receptor (S7) CD22 antigen (CD22)	1	U62631	В .	ļ	<u> </u>	<u> </u>	_		
CD24 signal transducer	<del></del>	M58664		ļ	<del> </del>	<u> </u>	<u> </u>		
CD33 antigen (gp67)	1	M23197	<u> </u>	<del>                                     </del>	<del> </del>	┼	+	<del>                                     </del>	
(CD33) CD33 antigen-like 2; OB	1	U71383				_	<u> </u>		
binding protein-2 (CD33L2) (non-exact, 68%)		07.000							
CD33L2 (61% aa)	. 1	D86359							
CD36 antigen (collagen type I receptor, thrombospondin receptor) (CD36)	<b>7</b>	M98398	Tlymphoma		+		+	+	
CD37 antigen (CD37)	5	X14046	+	+	† — ·	+		+	·
CD38 alf	1	D84277	† · · · · · · · · · · · · · · · · · · ·			$\Box$		i –	-
CD39 antigen (CD39)	1	U87967	В	+	1	1	+	+	
CD3D antigen, delta polypeptide (TIT3 complex) (CD3D)	1	X03934			+	+		+	
CD3E antigen, epsilon polypeptide (TIT3 complex) (CD3E)	<b>T</b> ,	X03884	+			+			
CD3G antigen, gamma polypeptide (TiT3 complex) (CD3G)	2	X06026	W				+		
CD3Z antigen, zeta polypeptide (TIT3 complex) (CD3Z)	2 .	J04132	+			+			
CD3-zeta (done pBS NK1)	ſ	X55510							
CD4 (low match)	1	S68043							
CD4 antigen (p55) (CD4)	4	M12807		+	+		+		
CD44 antigen (homing function and Indian blood group system (CD44)	6	X56794	W				+	+	
CD48 antigen (B-cell membrane protein) (CD48)	3	X06341	+	+	+	+	Ĺ	+	
CD53 antigen (CD53)	10	L11670	+	+		+	<u>L</u>	+	
CD53 antigen (CD53) (low match)	1	M60871			<u> </u>				
CD63 antigen (melanoma 1 antigen) (CD63)	3	M59907		<u> </u>	<u> </u>		<u> </u>	+	·
CD68 antigen (CD68)	2	S57235	l	+	+	<u> </u>	+		<u> </u>

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CD74 antigen (invariant	72	K01144	+	+	+	+	+	+	high in many libranes
polypeptide of major histocompatibility complex,									
class II antigen-associated)								l	
CD74)				, ,					
D79A antigen	-2	M80462			+				
immunoglobulin-									
ssociated alpha) (CD79A)		M89957	+			_	<u> </u>	-	<del></del>
D79B antigen	2	WI09907	· •			ŀ	ŀ		
immunoglobulin- associated beta) (CD79B)									,
D8 antigen, alpha	2	M27161	+			+	٠.	+	
polypeptide (p32) (CD8A)	_							l	
D8 antigen, beta	1	X13445	W						1
polypeptide 1 (p37)			,						
CĎ8B1)	<u> </u>						┞—	+	
CD81 antigen (target of	. 1	M33680		+	+			T	
antiproliferative antibody 1 (CD81)	-						1	1	
CD83 antigen (activated B	1	Q01151	В	+	+	_		+	<del> </del>
ymphocytes,	•	45.151				1	l	١.	,
nmunoglobulin			_				'	1	
superfamily) (CD83)	<u> </u>								•
CD84 antigen (leukocyte	1	U82988		+	+			+	
antigen) (CD84)		105000	·	L	<b> </b>	<u> </u>	1	<u> </u>	,
CD86 antigen	1	L25259		+	<u> </u>	<u>L_</u>			<u> </u>
CD9 antigen (p24) (CD9)	2	M38690			+		+	+	
CD97 antigen (CD97)	12	X84700	+	+		+		1	<u> </u>
CD97 antigen (CD97)	. 1	P48960		<u> </u>	<u> </u>	╁	1	<del>                                     </del>	
noin-exact 59%)	• •	1 - 140300				ĺ	ł		•
CD97 antigen (CD97) (non-	. 1	X94630	+	+		+		1-	
exact 62%)						ł			
CDC23 (cell division cycle	1	AF053977		+		•	+	+	
23, yeast, homolog)						ļ	1	1	1
(CDC23)		1100404		+	+	<u> </u>	+	+	<del></del>
CDC37 homolog	1	U63131	В		<u> </u>		1	ĻŤ	<u> </u>
Cdc42 effector protein 3	2	AF104857	- В	+	+	1	+	Ì	•
(CEP3)		L29219	<u></u>	+	+	+	↓	+	<u> </u>
CDC-like kinase (CLK)	1					Ľ	↓	Ļ	
CDC-like kinase 2 (CLK2)	1.	AF023268	В	+	+	1	1	1	
CDW52 antigen	13	X15183	Tactivated	+	+		+		
(CAMPATH-1 antigen)						1	} .	1	
(CDW52)					<u> </u>	ļ	<del> </del>	₩	ļ.,
cell cycle progression	1	AF011794	· ·		1		1	┨.	.
restoration 8 protein(CPR8) cell division cycle 10	4	S72008	<del>                                     </del>	+	+	+	+	+	<del>                                     </del>
(homologous to CDC10 of	-	3/2008	•	'	'	1		`	
S, cerevisiae) (CDC10)		1		1		l	1.	1	
cell division cycle 20,	1	U05340		+	+	+	1	1	
S.cerevisiae homolog			1		ł		1		
(CDC20)					<u>.                                    </u>	<u> </u>	<u> </u>		
cell division cycle 25B	6	Z68092	+	+	+	+		+	
(CDC25B)		1500354		ļ		╄	<b>↓</b> —	₩	<u> </u>
cell division cycle 2-like 1	1	AF067514		1		1	1	1	1
(PITSLRE proteins) (CDC2L1) (non-exact 42%)				1		1	1	1	
cell division cycle 42 (GTP-	5	M35543	+	+	+.	+	+	+	
binding protein, 25kD)				l			'	1	
(CDC42)					<u>L</u>			L	
cell division protein (non-	1	AF063015							
exact 68%)				<u> </u>	1	↓_	4_	1	
CELL-CYCLE NUCLEAR	. 1	Q13033				1	1		
ALITE AND INCIAL COURS	1			1	1	1	1	1	
			I	1	ł	1	1	1	
AUTOANTIGEN SG2NA (S/G2 NUCLEAR			Į.	1	1	1			
(S/G2 NUCLEAR ANTIGEN)		Y55030		<b>├</b> -	<b>├</b>	┼-	+	╁	
(S/G2 NUCLEAR ANTIGEN) centromere protein B	1 1	X55039		+		+	+	-	
(S/G2 NUCLEAR ANTIGEN)	1	X55039 AF022655	В	+			+		

•								
7	AF017456	+	+	+	+	+	+.	high in bone
							-	
6	X52206	<del> </del>		<b></b>		$\vdash$		
	7,522,50					<u> </u>		
3	AF132953.1	i						
1	X74801		+	+	┼──		+	<del> </del>
	,		٠.	•				
1 .	AF026291		+	+		+	+	
4		В	+	+				
4	AF026292	В	+				+	
1	U67615	B, T lymphoma	+	+		+	<u> </u>	
. 1	U67615							
4	U03905			Ī	-	_	<u> </u>	· .
1	X85740					$\vdash$	Ė	
				·				
6	L31581							
<u> </u>			+					
		+		+			<u> </u>	
							L	
[ -			. +		+		+	
	<u></u>							
			<u> </u>			<u> </u>		
.1	U93205	+	+	+	*		+	
5 ;	X15998			+				
. 2	J02814			+			+	
1	Q09028							
			·				1	
2	AF006513					-		
1	AF054177							
1	AF006514	В	+	+		+		
1	AF006515							
<b>!</b>	1	1	1	ì				
	6 3 1 1 4 4 1 1 6 5 5 2 1 1 1 5 2 1 1 1 1 1 1 1 1 1 1 1 1	6 X52206  3 AF132953.1 1 X74801 1 AF026291 4 L27706 4 AF026292 1 U67615 1 U67615 1 U67615 4 U03905 1 X85740 6 L31581 5 U20350 5 M99293 2 M80927 2 U49835 1 G18280 1 D28475 1 U93205 5 X15998 2 J02814 1 Q09028  2 AF006513 1 AF054177	6 X52206  3 AF132953.1 1 X74801  1 AF026291  4 L27706 B  4 AF026292 B  1 U67615 B, I lymphoma  1 U67615 4 U03905 1 X85740  6 L31581 5 U20350 5 M99293 + 2 M80927 2 U49835 1 G18280 1 D28475 1 U93205 + 5 X15998  2 J02814 1 Q09028  2 AF006513 1 AF054177 1 AF006514 B	6 X52206  3 AF132953.1 1 X74801 +  1 AF026291 +  4 L27706 B +  4 AF026292 B +  1 U67615 B, T ymphoma 1 U67615 4 U03905 1 X85740  6 L31581 5 U20350 +  5 M99293 + +  2 M80927 +  2 U49835 +  1 G18280 1 D28475 +  1 U93205 + +  5 X15998 2 J02814 1 Q09028  2 AF006513 1 AF054177 1 AF006514 B +	6 X52206  3 AF132953.1 1 X74801 + +  1 AF026291 + +  4 L27706 B + +  4 AF026292 B +  1 U67615 B, T +  1 U67615 B, T +  1 U67615 B, T +  1 U67615 B, T +  1 U67815  4 U03905 1 X85740  6 L31581 5 U20350 + +  2 M80927 + +  2 U49835 + +  1 G18280 1 D28475 + +  1 U93205 + + +  5 X15998 + +  2 J02814 + +  1 Q09028  2 AF006513 1 AF054177	6	6 X52206  3 AF132953.1 1 X74801 + + + + + + + + + + + + + + + + + + +	6 X52206  3 AF132953.1 1 X74801

11 0 00/10/15									
chromosome 1 open reading frame 7 (C1ORF7)	. 1	AF054176							
chromosome 1 specific transcript KIAA0493	1:	AB007962							
chromosome 17 open reading frame 1B (C17ORF1B)	1	AJ008112	1	+	٠.				
chromosome 4 open reading frame 1 (C4ORF1)	1	AF006621		+	+	+		:+	
chromosome condensation 1-like (CHC1L)	2	AF060219		+	+	+		+	
chromosome X open reading frame 5 (CXORF5)	1	Y15164	. В	+	+		+		
chromosome-associated polypeptide C(CAP-C)	2	AF092564	8	+	+	1	+	+	
cig42	<u>, 1</u> ,	AF026944							
cig5	3	AF026941							
citrate synthase (CS)	2	AF047042	В	. +	+	•	+	+	
class I major histocompatibility antigen (HLA-Cw3)	2	U31372							
class I major histocompatibility antigen (HLA-Cw3) (low match)		U31372			-				
clathrin assembly protein lymphoid myeloid leukemia (CALM)	3	U45976	В	+	+.,			+	
clathrin heavy chain	1	X55878		1					<u> </u>
clathrin, heavy polypeptide- like 2 (CLTCL2)	1	D21260						-	,
clathrin, light polypeptide (Lca) (CLTA) (low match)	1	M20472							
clathrin-	3	D63475		+	+	+	+	+	
associated/assembly/adapt or protein, medium 1 (CLAPM1)									
cleavage stimulation factor, 3' pre-RNA, subunit 2 64kD (CSTF2) (non-exact 82%)	1	M85085							
cleavage stimulation factor, 3' pre-RNA, subunit 3, 77kD (CSTF3)	1	U15782	В	+	+		+		
clk3	1	L29220	В	+	+		┢		
clone 23815 (Hs.82845)	1	U90916		+	+			+	
cione 24592 mRNA sequence	1	D88378	+	+	+	+		+	
Clq/MBL/SPA receptor C1qR(p) ()	1	U94333							
clusterin (complement lysis inhibitor, SP-40.40.	1	M64722	+	+	+	+	+	+	
sulfated glycoprotein 2, testosterone-repressed prostate message 2,		٠.							
apolipoprotein J) (CLU) CMP-sialic acid transporter	1	D87969	В	+	+	<u> </u>	-	-	
(CMPST)	3	X66171		$\vdash$		Ė	$\vdash$	H	
c-myc oncogene containing		X54629		†			$\vdash$	$\vdash$	
coxIII	1	M62424		+	+		$\vdash$	+	
(thrombin) receptor (F2R) coagulation factor V (proaccelerin, labile factor)	1	M14335		+		+	+		
(F5) coagulation factor XIII a	3	M21998	<del> </del>	<del> </del>	<del>                                     </del>	-	-		
subunit coagulation factor XIII, A1 polypeptide (F13A1)	6	M14354	<del> </del>	+ :	+	+		+	
coated vesicle membrane protein (RNP24)	1	X92098	+	+	+	+	+	Ŧ	
(Piotelli (RIVE 24)		<u> </u>				<u> </u>	<u> </u>		<del></del>

		· · ·							:
coatomer protein complex, subunit alpha (COPA)	5	U24105	T	+			+	·	
Cofilin 1 (non-muscle) (CFL1)	13	X95404	+	+	+	+	+	+	high in fetal brain
cold inducible RNA-binding protein (CIRBP)	7.	D78134		+	+			+.	
cold shock domain protein A (CSDA)	3	X95325		+	+				
collagen, type IX, alpha 2 (COL9A2)	3	AF019406	В						
colony stimulating factor 1 receptor, formerly	3	X03663	:	+		<u> </u>	+	+	·
McDonough feline sarcoma viral (v-fms) oncogene homolog (CSF1R)									
colony stimulating factor 2 receptor, beta, low-affinity (granulocyte-macrophage) (CSF2RB)	5	M59941	}		ĺ				
colony stimulating factor 2 receptor, beta, low-affinity (granulocyte-macrophage) (CSF2RB) (low match)	1	M59941							
colony stimulating factor 3 receptor (granulocyte) (CSF3R)	16	X55720							
complement component 5 receptor 1 (C5a ligand) (C5R1)	1	M62505	L			·			
conserved gene amplified in osteosarcoma (OS4)	2	AF000152		+	+	+		+	
COP9 (constitutive photomorphogenic, Arabidopsis, homolog) subunit 3 (COPS3)	2	AF031647		+	+			+	
COP9 homolog (HCOP9)	2	U51205	В	+	+	+	+	+	
COPII protein, homolog of s, cerevisiae SEC23p (SEC23A)	4	X97064		+	*				
copine I (CPNE1)	2	U83246	В	+	+	<b>†</b>	+		,
copine I (CPNE1) (low score)	1	U83246		-				-	
coproporphyrinogen oxidase (coproporphyria, harderoporphyria) (CPO)		D16611			+		+	+	
core-binding factor, beta subunit (CBFB)	1	L20298		+		T			
coronin	22	X89109	T, W	+	+		+		
coronin (low match)	1	U34690							
coronin (non-exact, 71%)	1	X89109							
cot (cancer Osaka thyroid) oncogene (COT)	1	D14497	+	+	+			+	
cryptochrome 1 (photolyase-like) (CRY1)	1	D84657		+	+			+	
CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) phosphatase, subunit 1	1	AF081287		+	+	+		+	
(CTDP1) C-terminal binding protein	1	U37408	B.	+.	+	$\vdash$	+	-	<u> </u>
1 (CTBP1) C-terminal binding protein	. 2	AF016507		+	+	$\vdash$	+	-	
2 (CTBP2) CUG triplet repeat, RNA- binding protein 1	3	U63289		+.	+	+	-	+	
(CUGBP1)	3	U58 <b>087</b>		-	<del>                                     </del>	+	$\vdash$	+	
cullin 1 (CUL1) cullin 3 (CUL3)	2	U58 <b>087</b>		Ļ	+	H	<del> </del>	+	
cut (Drosophila)-like 1	1	M74099	В	+	ĻŤ	┵	$\vdash$	H	
(CCAAT displacement protein) (CUTL1)		10174099		:					

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cyclin D2 (CCND2)	2	D13639		+	+	+		+	
cyclin D3 (CCND3)	5	M92287	B, T lymphoma		• +		+		
cyclin G1 (CNNG1)	1	D78341	В	+	+			+	
cyclin I	3	D50310	В.	+			+		
cyclin T2 (CNNT2)	1	AF048732	B, T lymphoma	В					
cyclin-dependent kinase 2 (CDK2)	. 1	X62071							
cyclin-dependent kinase inhibitor (p27Kip1)	1	S76986					,		
cyclin-dependent kinase inhibitor 1A (p21, Cip1) (CDKN1A)	2	S67388	+	+	+	+	+	+	
CYP2D7-CYP2D6 intergenic region (partial)	1 .	X90926			. <u>.</u>				
cystatin B (stefin B) (CSTB)	. 1	L03558			+	, _	+	+	
cysteine and glycine-rich protein 3 (cardiac LIM protein) (CSRP3)	5	L54057			+				
cytidine deaminase (CDA)	2	L27943					+		
cytochrome b	1	AF042500							
cytochrome b (CYTB) (isolate Aus5)	1 .	AF042518							
cytochrome b(-245) beta chain N-terminal region (X- linked granulomatous disease gene)	2	X05895							
cytochrome b-245, beta polypeptide (chronic granulomatous disease)	2	X04011	+			+		+	
(CYBB) cytochrome C	1	P00001			,		-	├	
cytochrome c oxidase	1	U90915	<del>                                     </del>	+	+	<del>                                     </del>	+	+	
subunit IV (COX4)		MEONEO					+	_	
cytochrome c oxidase subunit Vb (COX5B) cytochrome c oxidase	2	M59250 AB007618		+	+	+	_	+	
subunit VII-related protein (COX7RP)	6	AB007616		*	Ĭ.				
cytokine suppressive anti- inflammatory drug binding protein 1 (p38 MAP kinase) (CSBP1)	· 1	L35263	lymphocyte	+	+		+		
Cytoplasmic antiproteinase=38 kda intracellular serine	1	S69272			+				
proteinase inhibitor		57044		<u> </u>		<u> </u>	Ŀ	<u> </u>	,
cytotoxic granule- associated RNA-binding protein p40-TIA-1	1	S70114							
D123 (D123)	·····1	D14878	+	+		+	<u> </u>	+	
D2-2	1	AF019226			H	Π	<del>                                     </del>		
D38	1	X74802		<u> </u>	İΤ			Т	
damage-specific DNA binding protein 1 (127kD) (DDB1)	2	AJ002955	+	+	+	+	+	+	
DCHT (low match)	1	AF017635							
DEAD/H (Asp-Glu-Ala- Asp/His) box binding protein 1 (DDXBP1)		U78524		+	+	+	+	+	
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide (72KD) (P72)	2	U59321	T	+	+		+.	+	
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 1 (DDX1)	1	X70649		+	+			+	

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DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 15 (DDX15)	2	AB001636						٠	
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 16 (DDX16)	2	AB011149	+	+	+	+		+	
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 3 (DDX3)	3	U50553	+	+	+	+		+	
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 5 (RNA helicase, 68kD)	37	X15729	+	+	+	+		+	
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 5 (RNA helicase, 68kD) (DDAS) (low match)	1	AF015812			-	,			
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide 6 (RNA helicase, 54kD)	2	D17532	+	+					
(DDX6) DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 8	1	D50487		+	+	+		+	
(RNA helicase, 54kD) (DDX8) DEAD/H (Asp-Glu-Ala-	3	L13848	+	+	+	+		+	
Asp/His) box polypeptide 9 (RNA helicase A, nuclear DNA helicase II; leukophysin) (DDX9)									
DEAD/H (Asp-Glu-Ala- Asp/His) box polypeptide, Y chromosome (DBY)	1	AF000985		+	+		+		
Death associated protein 3 (DAP3) death effector domain-	2	X83544 AF083236	+	+	+	+	+	+	
containing protein (DEDD)  death-associated protein 6	2	AF083236 AF039136		+	+	+	_	+	
(DAXX) dedicator of cyto-kinesis 2	4	D86964	+	+		+		+	
(DOCK2) defender against cell death 1 (DAD1)	1	D15057			+	-	+	+	
Defensin, alpha 1, myeloid- related sequence (DEFA1)	4	L12690			+	+	+	+	
DEK gene (D6S231E) delta sleep inducing peptide, immunoreactor	4	X64229 Z50781	+	+	+	+	<u> </u>	+	
(DSIPI) dendritic cell protein	3	AF064603	+	+	+	+		+	
(GA17) deoxycytidine kinase (DCK)	1	M60527							
deoxyribonuclease II, lysosomal (DNASE2)	3	AB004574							
DGS-I	2	L77566		+	<u> </u>				
diacylglycerol kinase	3	D16440					<u> </u>		
diacylglycerol kinase alpha (DAGK1) (clone 24)	3	AF064771 AF064771		+					
diacylglycerol kinase alpha (DAGK1) (clone 24) (low match)	1						_	<u> </u>	
diaphanous (Drosophila, homolog) 1 (DIAPH1) diaphorase (NADH)	1	AF051782 Y09501	B, monocyte stimulated	+	+	+	+	+	
(cytochrome b-5 reductase) (DIA1)	Ì				Ĺ	Ĺ			
differentiated Embryo Chondrocyte expressed gene 1 (DEC1)	1	AB004066		+			+	+	

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differentiated Embryo Chondrocyte expressed gene 1 (DEC1) (low match)	1	AB004066							
differentiation antigen	1	L23415							
DiGeorge syndrome critical	1	X84076		. +	+	_	-	+	
region gené 2 (DGCR2) dihydrolipoamide	2	J03620		+		<u> </u>	+	+	
dehydrogenase (E3									
component of pyruvate dehydrogenase complex,					· ·				
2-oxo-glutarate complex, branched chain keto acid	,	·							·
dehydrogenase complex) (DLD)	•							ŀ	
dihydrolipoamide S- acetyltransferase (E2	-1	Y00978	В	+			+		
component of pyruvate dehydrogenase complex)					·				
dihydropyrimidinase-like 2	1	D78013		+	. +		+	+	
(DPYSL2) dinG gene	1	Y10571			L`	-	ļ	L	
diptheria toxin resistance	3	AF053003	В	+	+		+	+	
protein required for diphthamide biosynthesis								]	
(Saccharomyces)-like 2 (DPH2L2)									
disintegrin-protease (non- exact 72%)	1	Y13323							
DJ-1 protein	2	AF021819	<del></del>	+	+	+	$\vdash$	+	
Dmx-like 1 (DMXL1)	~ 1	AJ005821	+		+	+			
DNA (cytosine-5-)- methyltransferase 1 (DNMT1)	3	X63692	T activated, lymphoma	+			+	+	
DNA fragmentation factor, 40 kD, beta subunit (DFFB)	1	AF064019							
DNA fragmentation factor, 45 kD, alpha subunit (DFFA)	2	U91985	Τ.	+	+			+	
DNA mismatch repair protein (hMLH1)	1	U17840			٠.			<del>                                     </del>	
DNA segment on	3	M64241	+	+	+	+	+	+	high in many libraries
chromosome X (unique) 648 expressed sequence									
DNA segment, single copy probe LNS-CAI/LNS-CAII	3	M73547		+	+	+		+	
(deleted in polyposis (D5S346)									
DNA-damage-inducible transcript 1 (DDIT1) (low match)	1	L24498				·			
DnaJ protein	1	AJ001309							,
DnaJ protein	. 1	AJ001309							
docking protein 2, 56kD (DOK2)	1	AF034970							
dolichyl- diphosphooligosaccharide- protein glycosyltransferase (ODOST)	1	D89060	+	+	+	+	+	+	activated 1 cell
dolichyl-phosphate mannosyltransferase polypeptide 1, catalytic subunit (DPM1)	1	D86198	Tactivated	+	+		+		
down-regulated by activation (immunoglobulin superfamily) (DORA)	1	AJ223183	·				+		
down-regulated in adenoma DRA (low match)	1	P40879		-		H		$\vdash$	
D-type cyclin-interacting	1	AF082569	В			$\vdash$	+	+	
protein 1 (DIP1)									

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dual specificity phosphatase 1 (DUSP1)	4	X68277	+	+	+	+	+	+.	
dual specificity phosphatase 11 (RNA/RNP	1 .	AF023917	+	+	+	+		+	
complex 1-interacting) (dusp11)									
dual specificity phosphatase 3 (vaccinia	1	L05147		+	· <b>+</b>		+	+	
virus phosphatase VH1- related) (DUSP3)	6	X93920		+	+	+	+	+	
dual specificity phosphatase 6 (DUSP6) dynactin 1 (p150, Glued	3	X98801			<u> </u>				
(Drosophila) homolog)	3	A90001				ļ 			
dynactin 1 (p150, Glued (Drosophila) homolog) (DYTN1) (low match)	1 ,.	X98801	В	+	+				
dynamin 2 (DNM2)	1	L36983							·
dynamitin (dynactin	1	U50733							
complex 50 kD subunit) (DCTN-50) (non-exact 88%)					٠.				
dynein, axonemal, heavy polypeptide 17-like (non- exact, 57%aa)	1	X99947							
dynein, cytoplasmic, light intermediate polypeptide 2 (DNCL12)	1	AF035812	В	+	+	-		+	
dynein, cytoplasmic, light intermediate polypeptide 2 (DNCLI2) (non-exact, 69%)	1	AF035812							
dyskeratosis congenita 1, dyskerin (DKC1)	1	U59151	В	+			+	+	
dystonia 1, torsion (autosomal dominant) (DYT1)	1	AF007871		+	+	+		+	
dystrobrevin, beta (DTNB)	1	AF022728		+	<b>-</b>		_	Τ.	
dystrophia myotonica- containing WD repeat motif (DMWD)	1	L19267		+	+		+	+	
dystrophia myotonica- protein kinase (DMPK)	1	L08835	+	+	+			+	
dystrophin (muscular dystrophy, Duchenne and Becker types) (DMD) (low match, 59%aa)	.1	X14298							
E1B-55kDa-associated protein	1	AJ007509	W	+	+		+	+	
E2F transcription factor 3 (E2F3)	2	D38550		+	+	L	*	+	·
E2F transcription factor 4, p107/p130-binding (E2F4)	1 .	X86096	В	+			<b>†</b>	<u></u>	
E2F transcription factor 5, p130-binding (E2F5)	2	U15642	+	+	<u>                                     </u>	*	Ļ	+	
E74-like factor 1 (ets domain transcription factor) (ELF1)	1	M82882	В		+		+	+	
E74-like factor 4 (ets domain transcription factor) (ELF4)	3	U32645		+	+			+	·
E74-like factor 4 (ets domain transcription factor) (ELF4) (non-exact, 71%)	1	U32645							
early development regulator 2 (homolog of polyhomeotic 2) (EDR2)	4	U89278	+	+	+	+		+	
EBV induced G-protein coupled receptor (EBI2)	1	L08177	W						
ecotropic viral integration site 2B (EVI2B)	3	M60830	<u> </u>	+		+			
00 20 (27.20)	<u></u>	1							·

Columber   Columber		•		•						
CGF-like-domain, multiple   AB011541   AB011541   A (ECGFL4)   A (EC	ectin, galactoside-binding, soluble, 1 (galectin 1)		J04456						+	
Internation   Internation	EGF-like-domain, multiple 4 (EGFL4)	1	AB011541			-				
stenosis, Williams-Beuren syndrome (ELN) (low match) sieu-viype RNA-binding 3 U59548 protein (ETR-3) eleieu-viype RNA-binding 3 U59548 protein (ETR-3) eleieu-viype RNA-binding 3 U59548 protein (ETR-3) eleieu-viype RNA-binding 2 U504058 protein (ETR-3) eleicutron-transfer abduna II) (ETR-A)	homolog	3	U13261	В	+				+	
protein (ETR-3) electron-transfer- flavoprotein, alpha polypeptide (glutaric aciduria II) (ETFA) ELK3, ETS-domain protein (SIRF accessory protein 2) (ELK3) elongation factor 1-beta elongation factor 1-beta elongation factor 1- elongation factor 1- elongation factor 1- elongation factor 1- mitochondrial protein) elongation factor 1- unclear encoded mitochondrial eMDC II protein elongation factor 1- unclear encoded mitochondrial eMDC II protein elongation factor 1- ems1 sequence (mammary tumor and squamous cell carcinome-associated (p80/85 src substrate) (EMS1) endogenous retrovral element HC2 element HC2 endosulfine alpha (ENSA) endogheila differentiation, sphingolipid G-protein- coupled receptor, 1 (EDG1) endosheilal differentiation, sphingolipid G-protein- coupled receptor, 1 (EDG1) endosheilal monocyte- activating polypeptide (EMAPII) enclose 2, (gamma, encolase 1, (alpha) (ENO1) reclase 3, (parma) reclase 3, (parma) reclase 3, (parma) reclase 4, (parma) reclase 3, (parma) reclase 4, (parma) reclase 4, (parma) reclase 5, (parma) reclase 5, (parma) reclase 6, (parma) reclase 6, (parma) reclase 6, (parma) reclase 6, (parma) reclase 1, (parma) reclase 6,	stenosis, Williams-Beuren syndrome) (ELN) (low match)		M24782		+	+				
International color   International color	protein (ETR-3)	<u> </u>								·
(SRF accessory protein 2) (ELK3) elongation factor 1-beta elongation factor 10- elongation factor 10- muclear encoded mitochondrial protein) elongation factor 10- muclear encoded mitochondrial elongation factor 10- muclear encoded mitochondrial e	flavoprotein, alpha polypeptide (glutaric aciduna II) (ETFA)	2	J04058		*					
elongation factor 1s	(SRF accessory protein 2) (ELK3)					+			+	
(mitochondrial protein) elongation factor Tu- nuclear encoded mitochondrial mitochondr					ŀ	•				
nuclear encoded mitochondrial eMDC II protein 1 AJ242015.1	elongation factor Ts (mitochondrial protein)									
ems1 sequence (mammary tumor and squamous cell carcinoma-associated (p80/85 sr substrate) (EMS1) endogenous retroviral element HC2 endosulfine alpha (ENSA) 1	nuclear encoded mitochondrial	1		٠						
tumor and squamous cell carcinoma-associated (p80/85 src substrate) (EMS1)	eMDC II protein	1	1					-		
(EMS1) element HC2 endosulfine alpha (ENSA) element HC2 endosulfine alpha (ENSA) sphingolipid G-protein- coupled receptor, 1 (EDG1) endothelial differentiation, sphingolipid G-protein- coupled receptor, 1 (EDG1) (low match 66%) endothelial differentiation, sphingolipid G-protein- coupled receptor, 1 (EDG1) (low match 66%) endothelial monocyte- activating polypeptide (EMAPII) enolase 1, (alpha) (ENO1) enolase 2, (gamma, neuronal) (ENO2) enolase 3, (alpha) (ENO1) enolase 3, (alpha) (ENO1) enolase 4, (alpha) (ENO2) enolase 3, peroxisomal (ECH1) enoyl Coenzyme A hydratase 1, peroxisomal (ECH1) enoyl Coenzyme A hydratase, short chain, 1, mitochondrial (ECHS1) ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (Jow match, non-exact 56%) epidermal growth factor receptor pathway substrate	ems1 sequence (mammary tumor and squamous cell carcinoma-associated	1	M98343		+	+		+	+	
element HC2 endosulfine alpha (ENSA) endosulfine alpha (ENSA) endosulfine alpha (ENSA) endosulfine alpha (ENSA) endosulfine alpha (ENSA) endosulfine alpha (ENSA) endosulfine alpha (ENSA) sphingolipid G-protein- coupled receptor, 1 (EDG1) (low match 66%) endosulfine alpha (ENG1) (low match 66%) endosulfine alpha (ENG1) enolase 1, (alpha) (ENO1) enolase 2, (gamma, enolase 2, (gamma, enolase 2, (gamma, enolase 2, (gamma, enolase 2, (gamma, enolase alpha enoly (Coenzyme A hydratase 1, peroxisomal (ECH1) enoyl Coenzyme A hydratase, short chain, 1, mitochondrial (ECHS1) ENOYL-COA HYDRATASE, MITOCHONDRIAL PRECURSOR (SHORT CHAIN ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (Iow match, non-exact 56%) epidermal growin factor receptor pathway substrate	(p80/85 src substrate) (EMS1)	•								
endothelial differentiation, sphingolipid G-protein-coupled receptor, 1 (EDG1) endothelial differentiation, sphingolipid G-protein-coupled receptor, 1 (EDG1) (low match 66%) endothelial monocyte-activating polypeptide (EMAPII) enolase 1, (alpha) (ENO1) enolase 2, (gamma, 1 X51956 enolase 2, (gamma, 1 D28437 enolase-alpha 1 D28437 enolase-alpha 1 D28437 enolase-alpha 1 D28437 enolase-alpha 1 D13900 + + + + + + + + + + + + + + + + + +	endogenous retroviral element HC2	-								
sphingolipid G-protein-coupled receptor, 1 (EDG1) endothelial differentiation, sphingolipid G-protein-coupled receptor, 1 (EDG1) (low match 66%) endothelial monocyte-activating polypeptide (EMAPII) enolase 1, (alpha) (ENO1) 12 M14328 + + + + + + + + enolase 2, (gamma, neuronal) (ENO2) enolase-alpha 1 D28437 enoyl Coenzyme A hydratase 1, peroxisomal (ECH1) enoly Coenzyme A hydratase 1, peroxisomal (ECH1) enoly Coenzyme A 1 D13900 + + + + + + + + hydratase short chain, 1, mitochondrial (ECHS1) ENOYL-COA HYDRATASE, MITOCHONDRIAL PRECURSOR (SHORT CHAIN ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (SCEH) (enoyl-coa Hydratase) epidermal growth factor receptor pathway substrate	1	· ·	X99906	Т	+					·
sphingolipid G-protein- coupled receptor, 1 (EDG1) (low match 66%) endothelial monocyte- activating polypeptide (EMAPII) enolase 1, (alpha) (ENO1) 12 M14328 + + + + + enolase 2, (gamma,	sphingolipid G-protein- coupled receptor, 1 (EDG1)	2			+	+	+		+	
activating polypeptide (EMAPII) enolase 1, (alpha) (ENO1) 12 M14328 + + + + + + + enolase 2, (gamma, neuronal) (ENO2) enolase-alpha 1 D28437 enoyl Coenzyme A 2 U16660 hydratase 1, peroxisomal (ECH1) enoyl Coenzyme A 1 D13900 + + + + + + hydratase, short chain, 1, mitochondrial (ECHS1) ENOYL-COA 1 P30084 HYDRATASE, MITOCHONDRIAL PRECURSOR (SHORT CHAIN ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (Iow match, non-exact 56%) epidermal growth factor receptor pathway substrate	endothelial differentiation, sphingolipid G-protein- coupled receptor, 1 (EDG1) (low match 66%)	. 1	M31210							
enolase 2, (gamma, neuronal) (ENO2) enolase-alpha 1 D28437 enoyl Coenzyme A 2 U16660 hydratase 1, peroxisomal (ECH1) enoyl Coenzyme A 1 D13900 + + + + + + + + + + + + + + + + + +	endothelial monocyte- activating polypeptide (EMAPII)	1	U10117	+	+	+	+		+	
neuronal) (ENO2) enolase-alpha	enolase 1, (alpha) (ENO1)	12	M14328	+	+	+	+	+	+	
enoyl Coenzyme A hydratase 1, peroxisomal (ECH1) enoyl Coenzyme A hydratase, short chain, 1, mitochondrial (ECHS1) ENOYL-COA HYDRATASE, MITOCHONDRIAL PRECURSOR (SHORT CHAIN ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (Iow match, non-exact 56%) epidermal growth factor receptor pathway substrate	enolase 2, (gamma, neuronal) (ENO2)	1			+					
hydratase 1, peroxisomal (ECH1) enoyl Coenzyme A hydratase, short chain, 1, mitochondrial (ECHS1) ENOYL-COA HYDRATASE, MITOCHONDRIAL PRECURSOR (SHORT CHAIN ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE) (Iow match, non-exact 56%) epidermal growth factor receptor pathway substrate	enolase-alpha	1								
hydratase, short chain, 1, mitochondrial (ECHS1)  ENOYL-COA HYDRATASE, MITOCHONDRIAL PRECURSOR (SHORT CHAIN ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE 1) (low match, non-exact 56%) epidermal growth factor receptor pathway substrate	enoyl Coenzyme A hydratase 1, peroxisomal (ECH1)	2	U16660							
HYDRATASE, MITOCHONDRIAL PRECURSOR (SHORT CHAIN ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE 1) (low match, non-exact 56%) epidermal growth factor receptor pathway substrate	enoyl Coenzyme A hydratase, short chain, 1, mitochondrial (ECHS1)	1		+	+	+	+	+	+	
epidermal growth factor 2 U07707 + + + + receptor pathway substrate	ENOYL-COA HYDRATASE, MITOCHONDRIAL PRECURSOR (SHORT CHAIN ENOYL-COA HYDRATASE) (SCEH) (ENOYL-COA HYDRATASE 1) (low		P30084							
15 (EPS15)	epidermal growth factor receptor pathway substrate 15 (EPS15)	2	U07707	٠.	+		+		*	

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EPIDIDYMAL SECRETORY PROTEIN	2	Q15668							
E1 PRECURSOR (EPI-1) (HE1) (EPIDIDYMAL SECRETORY PROTEIN					'				
14.6) (ESP14.6) epithelial membrane protein 3 (EM[P3)	.1	U87947	+	+	.+	+		+	
Epoxide hydrolase 1, microsomal (xenobiotic)	1	L29766							+ only
(EPHX1) ERCC2 (=L47234)		X52221		╁╾┼		$\vdash$			
ERF-2	3	U07802	+	++	+	+		+	high in gall bladder
ERp28 protein		X94910	+	++	+	+		+	
erythrocyte membrane protein	2	M81635		b	ŧ				
erythroleukemic cells K562	2	L25343							
EST (Hs.189509)	2	U24166							
estrogen receptor-related protein (hERRa1)	1	L38487							·
ESTs, Highly similar to ADENYLOSUCCINATE SYNTHETASE		X66503	В, Т	+	+				
ESTs, Moderately similar to cysteine-rich fibroblast growth factor receptor	1	U28811	+	+	+	*		+	
ET binding factor 1 (SBF1)	1	U93181	+	+				+	
ets domain protein ERF	1	U15655	+	+	+	+		+	
eukaryotic translation elongation factor 1 alpha 1 (EEF1A1)	326	X03558	T	+	+			+	
eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) (low match)	1	X03558							
eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) (low match)	1	X03558	,						
eukaryotic translation elongation factor 1 beta 2 (EEF1B2)	5	X60489	+	+	+	+		+	
eukaryotic translation elongation factor 1 delta (guanine nucleotide	1	Z21507	+	+	+	+	+	+	
exchange protein) (EEF1D) eukaryotic translation elongation factor 1 gamma	31	Z11531							
(EEF1G) eukaryotic translation	2	X51466		+.	-	<del> </del>	-	+	
elongation factor 2 (EEF2) eukaryotic translation initiation factor 2, subunit 1 (alpha, 35kD) (EIF2S1)	7.	J02645							
eukaryotic translation initiation factor 2, subunit 2 (beta, 38kD) (EIF2S2)	1	M29536							
eukaryotic translation initiation factor 2, subunit 3 (gamma, 52kD) (EIF2S3)	3	L19161		+	+				
eukaryotic translation initiation factor 3, subunit 10 (theta, 150/170kD) (EIF3S10)	2	U78311	·						
eukaryotic translation initiation factor 3, subunit 2 (beta, 36kD) (EIF3S2)	3	U36764	+	+	+	+	+	+	high in white blood cells
eukaryotic translation initiation factor 3, subunit 3 (gamma, 40kD) (EIF3S3)	6	U54559	+	+	+	+		+	high in spleen
eukaryotic translation initiation factor 3, subunit 4 (delta, 44kD) (EIF3S4)	9	AF020833		+	+	+		+	

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eukaryotic translation initiation factor 3, subunit 6 (48kD) (EIF3S6)	4	U94175	+	+	+	+		+	high in bladder
eukaryotic translation initiation factor 3, subunit 6 (EIF3S6)	1	U62962		+	+	+		+	Highly represented (1.4833 pct) in library 36 human gall bladder
eukaryotic translation initiation factor 3, subunit 7 (zeta, 66/67kD) (EIF3S7)	3	U54558	+	+	+	+		•+	
eukaryotic translation initiation factor 3, subunit 8, 110KD (EIF3S8)	5	U46025	+	+	+	+	+	•	high in testis
eukaryotic translation initiation factor 4 gamma, 1 (EIF4G)	1	AF012088							
eukaryotic translation initiation factor 4 gamma, 1 (EIF4G) (low match)	7	AF012088		ļ	÷				
eukaryotic translation initiation factor 4 gamma, 1 (EIF4G1)	2	D12686							
eukaryotic translation initiation factor 4 gamma, 2 (EIF4G2)	6	U73824	+	+	+	+	+	+	
eukaryotic translation initiation factor 4 gamma, 2 (EIFG2)	2	U76111	+	+	+	+	+	+	
eukaryotic translation initiation factor 4A, isoform 1 (EIF4A1)	29	D13748							
eukaryotic translation initiation factor 4A, isoform 2 (EIF4A2)	11	D30655	+	+	+		+	+	
eukaryotic translation initiation factor 4B (EIF4B) eukaryotic translation	18	X55733 P06730	+	+	+	+		+	
initiation factor 4E (EIF4E) Eukaryotic translation	3	L36056	Т, В	<del>                                     </del>			+	+	·
initiation factor 4E binding protein 2 (EIF4EBP2)			1, 5	Ĺ				Ĺ	
eukaryotic translation initiation factor 4H (EIF4H)	2	Q15056		ŀ			·		
eukaryotic translation initiation factor 5 (EIF5)	. 2	U49436	+	+	+	+	+	+	
eukaryotic translation termination factor 1 (ETF1)	2	U90176	+	+	+	+		+	
EV12 protein Ewing sarcoma breakpoint	1	M55266 X66899	+	+ +	+	+	-	+	<u> </u>
region 1 (EWSR1) EWS/FLI1 activated	2	AF020264		<del> </del>	<u> </u>	_		-	
transcript 2 homolog (EAT- 2) EWS-E1A-F chimeno	1	U35622		<u> </u>		<u> </u>			
protein excision repair cross-	· ·	M28650		+	+	+	_	+	
complementing rodent repair deficiency, complementation group 1	<b>'</b>	19/20030	·		·	ľ			
(includes overlapping antisense sequence)					-				
excision repair cross- complementing rodent repair deficiency,	1	X69978		+	+	+		+	
complementation group 5 (xeroderma pigmentosum, complementation group G	. •								
(Cockayne syndrome)) (ERCC5)		AE004600			<u> </u>			_	· · ·
exostoses (multiple)-like 3 (EXTL3)	1	AF001690		+	+	+		+	
<u> </u>	1	X77744		<u> </u>	L		L	<u> </u>	<u> </u>

F-1 beta)	WO 00/40/49									C1/CA00/00005
	F1-ATPase beta subunit (F-1 beta)	2	X03559							
Complementation group A   FANCA  ar upstream element   PANCA  ar upstream element   PANCA  ar upstream element   PANCA  ar upstream element   PANCA  ar upstream element   PANCA  ar upstream element   PANCA  ar upstream element   PANCA  ar upstream element   PANCA  are upstr	Fanconi anaemia group A	2								
FUSE  binding protein 1	Fanconi anemia, complementation group A (FANCA)		·		+		+			·
synthase (famesy) cyrophosphate synthetase, dimethylallytra stransferase (Proposphate synthetase, dimethylallytra stransferase) (POPS)	(FUSE) binding protein 1 (FUBP1)	_						•		
pyrophosphate synthetase, dimethylallytra stransferase (F.OPS) (Port) (P	farnesyl diphosphate	1	J05262	+	+	+	+		+	
Samesyldiphosphate   2	pyrophosphate synthetase, dimethylallyltra nstransferase, geranyltranstransferase)			E.		. 1		-		
CFDFT1	farnesyl-diphosphate	2	X69141	+	.+	+	+	+	+	
box, beta (FNTB) ras ligand (gene and promoter region) ras ligand (gene and associated factor 1 fatty-acid-Coenzyme A ligses, long-chain 1 (FACL1) Fo fragment of IgA, receptor for (FCAR) for (FCER16) Fo fragment of IgC, low affinity I, receptor for (FCCR) Fo fragment of IgC, low affinity I, receptor for (CD23A) (FCER2) Fo fragment of IgC, low affinity II, receptor for (CD23A) (FCER2) Fo fragment of IgC, low affinity III, receptor for (CD23A) (FCER3) Fo fragment of IgC, low affinity III, receptor for (CD23C) FC fragment of IgC, low affinity III, receptor for (CD23C) FC fragment of IgC, low affinity III, receptor for (CD32) FC fragment of IgC, low affinity III, receptor for (CD32) FC fragment of IgC, low affinity III, receptor for (CD32) FC fragment of IgC, low affinity III, receptor for (CD32) FC fragment of IgC, low affinity III, receptor for (CD32) FC fragment of IgC, low affinity III, receptor for (CD32) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgC, low affinity III, receptor for (CD	(FDFT1)		LANGUE				<u> </u>		lacksquare	
promoter region) ras-ligand associated factor 1 falty-acid-Coenzyme A figses, long-chain 1 (FACL1) FC fragment of IgA, receptor for (FCAR) FC fragment of IgE, low affinity I, receptor for (FCER1) FC fragment of IgE, low affinity I, receptor for (FCCAR2) FC fragment of IgE, low affinity II, receptor for (CD23A) (FCER2) FC fragment of IgE, low affinity III, receptor for (CD23A) (FCER2) FC fragment of IgE, low affinity III, receptor for (CD23C) FC fragment of IgE, low affinity III, receptor for (CD3C) FC fragment of IgE, low affinity III, receptor for (CD3C) FC fragment of IgE, low affinity III, receptor for (CD3C) FC fragment of IgE, low affinity III, receptor for (CD3C) FC fragment of IgE, low affinity III, receptor for (CD3C) FC fragment of IgE, low affinity III, receptor for (CD3C) FC fragment of IgE, low affinity IIII, receptor for (CD16) FC fragment o	box, beta (FNTB)	_					·			
factor 1   fatthy-acid-Coenzyme A	promoter region)			·				<u> </u>		
igase, long-chain 1 (FACL1) Fc fragment of IgA, receptor for (FCAR) Fc fragment of IgE, high affinity I, receptor for (CCR16) Fc fragment of IgE, low affinity II, receptor for (CCZ3A) Fc fragment of IgE, low affinity II, receptor for (CD23A) Fc fragment of IgE, low affinity II, receptor for (CD23A) Fc fragment of IgC, low affinity II, receptor for (CD3A) Fc fragment of IgC, low affinity II, receptor for (CD3C) Fc fragment of IgC, low affinity II, receptor for (CD3C) Fc fragment of IgC, low affinity III, receptor for (CD3C) Fc fragment of IgC, low affinity III, receptor for (CD3C) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for (CD16) Fc fragment of IgC, low affinity III, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor IIIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, receptor for IIII, re	Fas-ligand associated factor 1	.1								
receptor for (FCAR) For fragment of IgE, high affinity I, receptor for, gamma polypeptide (FCER1G) For fragment of IgE, low affinity II, receptor for (CD23A) (FCER2) For fragment of IgG, low affinity III, receptor for (CD32A) (FCER2) For fragment of IgG, low affinity III, receptor for (CD32) (FCGR2A) For fragment of IgG, low affinity III, receptor for (CD32) (FCGR2A) For fragment of IgG, low affinity III, receptor for (CD32) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity IIII, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity IIII, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity IIII, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity IIII, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity IIII, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity IIII, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity IIII, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) For fragment of IgG, low affinity III	fatty-acid-Coenzyme A ligase, long-chain 1 (FACL1)	4		+	+	+	+	+	+	
For fragment of IgE, high affinity I, receptor for; gamma polypeptide (FCERIG) FC tragment of IgE, low affinity II, receptor for (CD23A) (FCER2) FC fragment of IgS, low affinity II, receptor for (CD3A) (FCGR2A) FC fragment of IgG, low affinity III, receptor for (CD32) (FCGR2A) FC fragment of IgG, low affinity III, receptor for (CD32) (FCGR2A) FC fragment of IgG, low affinity III, receptor for (CD32) (FCGR2A) FC fragment of IgG, low affinity III, receptor for (CD16) (FCGR3A) FC fragment of IgG, and the state of the state	Fc fragment of IgA,	1	X54150							
(FCER1G) FC fragment of IgE, low affinity II, receptor for (CD23A) (FCER2) FC fragment of IgG, low affinity IIa, receptor for (CD32) FC fragment of IgG, low affinity IIa, receptor for (CD32) FC fragment of IgG, low affinity IIa, receptor for (CD32) (FCGR2A) FC fragment of IgG, low affinity IIIa, receptor for (CD32) (FCGR3A) FC fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A) FC fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A) FC fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A) FC-gamma-receptor, transporter, alpha (FCGRT) IC-Igr 1 213983 FC-gamma-receptorIIIB 2 M90748 (FCGR3B) Iteline sarcoma (Snyder-Theilen) viral (v-fes)/Fujinami avian sarcoma (FRCII) viral (v-fes)/Fujinami avian sarcoma (FRCII) viral (v-fes) oncogene homolog(FES) c-fes/fps) Iterritin L-cham 9 Y09188 Iterritin, heavy polypeptide 1 4 M11146 + + + + + + + + + + + + + + + + + + +	Fc fragment of IgE, high affinity I, receptor for; gamma polypeptide	<b>1</b>	М33195	+	+	+	+		+	
(CD23A) (FCER2) Fc fragment of IgG, low affinity IIa, receptor for (CD32) Fc fragment of IgG, low affinity IIa, receptor for (CD32) Fc fragment of IgG, low affinity IIa, receptor for (CD32) (FCGR2A) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3B) Fc fragment	(FCER1G) Fc fragment of IgE, low	2	X04772	+	+			-		
(CD32)   Fc Iragment of IgG, low affinity IIa, receptor for (CD32) (FCGR2A)   Fc Iragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A)   Fc Iragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A)   Fc Iragment of IgG, receptor, transporter, alpha (FCGRT)   C13983   Fc-gamma-receptorIIIB (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-receptorIIII (FCGR3B)   Fc-gamma-re	(CD23A) (FCER2)	6	M31932	+	+	+	+	+	+	
affinity IIa, receptor for (CD32) (FCGR2A) FC fragment of IgG, low affinity IIIa, receptor for (CD16) (FCGR3A) FC fragment of IgG, and affinity IIIa, receptor, transporter, alpha (FCGRT) IC-Igr 1 Z13983 FC-gamma-receptorIIIB 2 M90748 (FCGR3B) FC-gamma-receptorIIIB 3 M90748 (FCGR3B) FC-gamma-receptorIIII 4 M90748 (FCGR3B) FC-gamma-receptorIIII 5 M90748 (FCGR3B) FC-gamma-receptorIIII 6 M90748 (FCGR3B) FC-gamma-receptorIII 7 M90748 FC-gamma-receptorIII 8 M90748 FC-gamma-receptorIII 8 M90748 FC-gamma-receptorIII 8 M90748 FC-gamma-receptorIII 8 M90748 FC-gamma-receptorIII 9	(CD32)				_					
affinity Illa, receptor for (CD16) (FCGR3A)         V12255         + + + + + + high in many libraries receptor, transporter, alpha (FCGRT)         2 13983         + + + + + + high in many libraries receptor, transporter, alpha (FCGR3B)         V12255         + + + + + + + high in many libraries receptor, transporter, alpha (FCGRT)         V13983         V12255         + + + + + + + + high in many libraries receptor, transporter, alpha (FCGRT)         V13983         V12255         + + + + + + + + + + + + + + + + + + +	Fc fragment of IgG, low affinity IIa, receptor for (CD32) (FCGR2A)			+	+	+		+		
	laffinity IIIa, receptor for (CD16) (FCGR3A)	:		+	+	+				
Total   Tota	Fc fragment of IgG, receptor, transporter, alpha (FCGRT)	3	U12255		+	+	+	+	+	high in many libraries
(FCGR3B)   feline sarcoma (Snyder-Theilen) viral (v-fes)/Fujinami avian sarcoma (PRCII) viral (v-fps) oncogene homolog(FES) c-fes/fps)   female sterile homeotic-related gene 1 (mouse homolog) (FSRG1)   ferritin L-chain 9   femitin, heavy polypeptide 1 (FTH1)   ferritin alpha pseudogene 1   fetal Alzheimer antigen (FALZ)   fetal Ig heavy chain variable region 1   fibrillarin (FBL) 1   X06292   X96670 +   + + <td< td=""><td>fc-fgr</td><td>1</td><td></td><td></td><td>Ī</td><td></td><td></td><td></td><td></td><td></td></td<>	fc-fgr	1			Ī					
Theilen) viral (v- fes)/Fujinami avian sarcoma (PRCII) viral (v- fps) oncogene homolog(FES) c-fes/fps) female sterile homeotic- related gene 1 (mouse homolog) (FSRG1) ferritin L-chain 9 Y09188 ferritin, heavy polypeptide 1 (FTH1) ferritin alpha pseudogene 1 Y09232 fetal Alzheimer antigen (FALZ) fetal g heavy chain variable region fibrillarin (FBL) 1 X56597 + + + + + + + fibrinogen-like protein 2 3 Z36531 (T49)		2								
fps) oncogene homolog(FES) c-fes/fps)  female sterile homeotic-related gene 1 (mouse homolog) (FSRG1)  femilin L-chain 9 Y09188  femilin, heavy polypeptide 1 4 M11146 + + + + + + + + + + + + + + + + + + +	fes)/Fujinami avian	3	X06292							
related gene 1 (mouse homolog) (FSRG1) ferritin L-chain 9 Y09188 ferritin, heavy polypeptide 1 4 M11146 + + + + + + + + + + + + + + + + + + +	fps) oncogene homolog(FES) c-fes/fps)	<del></del>	X96670	+	+	+	+	_	+	
territin, heavy polypeptide 1	related gene 1 (mouse homolog) (FSRG1)							L		
(FTH1)         fertilin alpha pseudogene       1       Y09232         fetal Alzheimer antigen       2       U05237       +         (FALZ)       1       M34024       +         variable region       1       X56597       +       +       +         fibrillarin (FBL)       1       X56597       +       +       +       +         fibrinogen-like protein 2       3       Z36531       +       +       +	I		<b>J</b>			<del> </del>	1	-	+	
fetal Alzheimer antigen       2       U05237       +         (FALZ)       1       M34024         variable region       1       X56597       +       +       +       +         fibrillarin (FBL)       1       X56597       +	(FTH1)		i	ļ , ,	<u> </u>	Ľ	<u> </u>	Ĺ	Ľ	
(FALZ)         fetal Ig heavy chain variable region       1       M34024       Image: M34024 model of the control of	1		1		+	<del> </del>	├-	_		
fibrillarin (FBL)     1     X56597     +     +     +     +     +     +       fibrinogen-like protein 2 (T49)     3     Z36531     +     +     +	(FALZ) fetal Ig heavy chain					_	$\vdash$		-	
fibrinogen-like protein 2 3 Z36531 + (T49)	region (FBL)	<del></del>	X56597	+	+	+	+	+	+	
(T49)			i	<del> </del>	-			$\vdash$	-	<del>                                     </del>
				12	<u> </u>	<u> </u>	<u> </u>	<u> </u>		J

fibroblast growth factor receptor 2 (bacteria-	. 1	M35718	+	+	+	+	+	+	
expressed kinase,									1
keratinocyte growth factor									· ·
receptor, craniofacial			· .						
dysostosis 1, Crouzon	-								
syndrome) syndrome,				1 '					
Pfeiffer syndrome,	•			1				ľ	
Jackson-Weiss) (FGFR2)	·	200000							
ficolin (collagen/fibrinogen	19	D83920	ŀ	1		+		+	
domain-containing) 1 (FCN1)		] ,	<u> </u>	1	1				
filamin A. alpha (actin-	2	X53416	<u> </u>		<b>-</b>	_	-	$\vdash$	<del> </del>
binding protein-280)	-	7,004.0		1	i	٠.		١.	
(FLNA)			1	1				i .	
filamin B, beta (actin-	1.	AF043045		+	+		+		
binding protein-278)	, .		İ					ł	
(FLNB)				ļ				<u> </u>	1
Finkel-Biskis-Reilly munne	2	X65923	+	+	+	+	+	+	Highly represented in
sarcoma virus (FBR-MuSV)		·	i '		1	·			intraepithelial neoplasia and
ubiquitously expressed (fox								·	invasive prostate
derived); ribosomal protein    S30 (FAU)		1		l				ĺ	tumor
FK-506 binding protein	1	M80199	+	+	+	+		+	
,	2	M34539	<del></del>	4	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
FK506-binding protein 1A (12kD) (FKBP1A)	12 %	IVI 34538	1	1			l	l	
FK506-binding protein 1B	1	M92423	-	+	<del>                                     </del>	+		+	
(12.6 kD) (FKBP1B)	'	17102720	1	1	ļ	١.	ļ.		
FK506-binding protein 5	4	U71321	<del> </del>	+	+	+	$\vdash$	+	
(FKBP5)	·	1			ļ		1	-	
Flightless I (Drosophila)	3	U80184		+					
homolog (FLII)	*	1 :			İ				
Flightless I (Drosophila)	. 1	U80184							-
homolog (FLII) (low match)				<u> </u>		<u> </u>			<u> </u>
FLN29 (FLN29)	2	AB007447		+	Ī	+	ĺ	+	
flotillin 2 (FLOT2)	5	M60922	+	+	+	+	+	+	
folate receptor 2 (fetal)	1.	AF000380	<del> </del>	+ .+	+	+	├─	+	
(FOLR2)			•		ĺ	l		1	
forkhead (Drosophila)	- 1	AF032886	+	+	<b></b>	+	Г	+	
homolog		•		1					
(mabdomyosarcoma) like 1				1	l		٠.		
(FKHRL1)			<u> </u>	┸	1	<u> </u>	L_	Ľ.	
Formyl peptide receptor 1	. 9	M60627	+	+	+	+		+	
(FPR1) formyl peptide receptor-like	1	M84562					-	-	Found only in
1 (FPRL1)	'	10104302		į .	l	ł	1	ı	libraries from
I (FFRLI)				1.			1		placenta
formyl peptide receptor-like	1	M84562	<u> </u>	1	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	1	
1 (FPRL1) (low score)	·	1	1	1	ļ .	l			
fragile X mental retardation	1	L29074	+	+		+		+	/
1 (FMR1)			<u> </u>	<u> </u>	<u>L</u>				
fragile X mental	1	U25165	+	+	+	+		1	
retardation, autosomal				1	1	1	1	1	
homolog 1 (FXR1)	<del></del>	MODARE	<b>_</b>	+	ļ	<u> </u>	<u> </u>	₩-	
Friend leukemia virus	3	M93255	+	+	1.		1	1	
integration 1 (FLI1)	1	D26054	<del> </del>	+	<del> </del>	+	<del></del>	+	<del>                                     </del>
fructose-bisphosphatase 1 (FBP1)	'	D20004		1	1	*	l	1	
FSHD-associated repeat		U85056	<del> </del>	+	<del>                                     </del>	╁┈	$\vdash$	$\vdash$	
DNA, proximal region	'						l	I	i
fucose-1-phosphate	1	AF017445	1 -	+	+	+	Ι.		
guanylyitransferase				1.			Ι΄	I	
(FPGT)	·					<u> </u>	<b>└</b>	<b>↓</b>	<u> </u>
full length insert cDNA	1	AF086122		1.					•
clone ZA78A09		AED7EDE4	ļ	<del> </del>	₩	-	<del>                                     </del>	₩	<del> </del>
full length insert cDNA	1	AF075061					1	1	
YP07G10 Iumarate hydratase (FH)	1	U59309	<del> </del>	+	- <del>+</del>	+	┰	+	<del> </del>
•		l	ļ	+	<b>├</b>	<del>                                     </del>	<b>├</b>	$\dotplus$	ļ
FUS (low match)	1	X99006			<u> </u>		1	<u> </u>	<u> </u>
FYN-binding protein (FYB-	16	U93049		+		+	1	1	
120/130) (FYB)	l	1	I	1	1	I	<u> </u>	1	L

Galpha interacting protein (GAIP) (low score)   1	
G protein 12.3   C protein 12.3   C protein 12.3   C protein 12.3   C protein-coupled receptor   C pr	
G protein-coupled receptor 64 (HE6) (non-exact 59%) G protein-coupled receptor kinase 6 (GPRK6) G1 to S phase transition 1 2 X17644 + + + + + + + (GSPT1) GA-binding protein transcription factor, beta subunit 2 (47kD) (GABPB2) galactose-1-phosphate uridylytransferase (GALT) g2 2cts@3ae, beta 6 3 M27508 + + + + + + (GLB1) galactosyltransferase (FALT) galactosyltransferase (FALT) galactosyltransferase (FALT) galactosyltransferase (FALT) galactosyltransferase (FALT) galactosyltransferase (FALT) galactosyltransferase (FALT) gamma2-adaptin (G2AD)	
G protein-coupled receptor kinase 6 (GPRK6)  G1 lo S phase transition 1 (GSPT1)  GA-binding protein 1 D13316 + + + + + + + + + + + + + + + + + + +	
G1 to S phase transition 1 (GSPT1)  GA-binding protein  transcription factor, beta subunit 2 (47kD) (GABPB2)  galactose-1-phosphate uridylyltransferase (GALT)  GA-binding protein  transcription factor, beta subunit 2 (47kD) (GABPB2)  galactose-1-phosphate uridylyltransferase (GALT)  GA-binding protein  M60091  WM27508  MM2750	
GA-binding protein transcription factor, beta subunit 2 (47kD) (GABPB2) galactose-1-phosphate unidylytransferase (GALT) galactosyltransferase (GLB1) galactosyltransferase (GLB1) galactosyltransferase (GLB1) (GLB1) galactosyltransferase (SALT) (EX13223 N-acetylglucosamide-(beta 1-4)-galactosyltransferase) galectin-9 isoform 1 AB006782 + + + + + the gamma2-adaptin (G2AD) 1 AF068706 + + + + + the gamma-aminobutyric acid 2 AJ012187 + + + + (GABA) B receptor 1 (GABR1) (GABR1) (GATA-binding protein 2 1 M68891 + + + + the gamma-aminobutyric acid (GATA-binding protein 2 1 M68891 + + + the gamma-aminobutyric acid (GATA-binding protein 2 1 M68891 + + the gamma-aminobutyric acid (GATA-binding protein 2 1 M68891 + + the gamma-aminobutyric acid (GATA-binding protein 2 1 M68891 + the gamma	
Subunit 2 (47kD) (GABPB2)	
Uridylytransferase (GALT)   CALCE   CALT   CALCE   CALT   CALCE   CALT   CALCE   CALT   CALCE   CALT   CALCE   CALT   CALCE	
GLB1   galactosyltransferase   1	
(=X13223 N-acetylglucosamide-(beta 1-4)-galactosyltransferase)       4)-galactosyltransferase)         galectin-9 isoform       1       AB006782       +       +       +       +         gamma2-adaptin (G2AD)       1       AF068706       +       +       +       +         gamma-actin       2       M37130       -       -       -       + <td></td>	
4)-galactosyltransferase    galectin-9 isoform	
gamma2-adaptin (G2AD)     1     AF068706     +     +     +     +       gamma-actin     2     M37130     -       gamma-aminobutyric acid     2     AJ012187     +     +     +       (GABA) B receptor 1 (GABR1)     GATA-binding protein 2     1     M68891     +     +       (GATA2)     +     +     +	
gamma-actin 2 M37130  gamma-aminobutyric acid 2 AJ012187 + + + + (GABA) B receptor 1 (GABR1)  (GATA-binding protein 2 1 M68891 + + + + (GATA2)	
gamma-aminobutyric acid 2 AJ012187 + + + (GABA) B receptor 1 (GABR1) GATA-binding protein 2 1 M68891 + + + (GATA2)	
(GABA) B receptor 1 (GABR1)  GATA-binding protein 2 1 M68891 + + + + (GATA2)	· ·
(GATA2)	
[GATA-binding protein 3   1   M69106       +   +   +	
(GATA3)	
amino-acid synthesis, yeast, homologi-like 1	` .
(GCN5L1) GDP dissociation inhibitor 1 D45021 + + + + high in adult	brain
1 (GDI1) GDP dissociation inhibitor 4 Y13286	
2 (GCl2) GDS-related protein 4 U68142 + + + + + + +	
(HKE1.5) gelsolin (amyloidosis, 3 X04412 + + + + + +	
Finnish type) (GSN) general transcription factor 4 Y14946 + + + + + + +	
II, I (GTF2I)   general transcription factor   1   AF038968   +   +   +   +   +   high in fetal I	brain
III, i, pseudogene 1 (GTF2IP1)	
general transcription factor 4 X64037 + + + + + + +   +   HF, polypeptide 1 (74kD   subunit) (GTF2F1)	
general transcription factor 2 Z30093 B, T IIIH, polypeptide 3 (34kD subunit) (GTF2H3)	
general transcription factor 3 Y07595 + + + +	
general transcription factor 1 U14134 + + + + +	
general transcription factor 1 U02519 + +	
subunit, 220kD ) (GTF3C1) general transcription factor 3 D13636 + + + + + + + +	
IIIC, polypeptide 2 (beta subunit, 110kD) (GTF3C2)	
germline immunoglobulin 1 L06612 heavy chain (IGHV@)	
germline immunoglobulin 1 X92236	
germline immunoglobulin 1 X92343 heavy chain, variable region, (21-2)	

WO 00/40/49			•						C1/CA00/00005
GLE1 (yeast homolog)-like, RNA export mediator (GLE1L)	1	AF058922		+	+				
glia maturation factor, beta (GMFB)	1	AB001106	+	+		+		+	
glioma-associated oncogene homolog (zinc finger protein) (GLI)	1	X07384				-			
glioma-associated oncogene homolog (zinc	, 1	× X07384							
finger protein) (GLI) (low score)							·		
globin, alpha 2	1.	∨00516							
glucocorticoid receptor (=M69104)	1	M32284							
glucocorticoid receptor (GRL)	2	U80947	+	+	+	+		+	
glucos phosphate isomerase (CONTAINS LARGE REPEAT)	1	L09105							
glucosamine (N-acetyl)-6- sulfatase (Sanfilippo disease IIID) (GNS)	1	Z12173	+				14		
glucosamine (N-acetyl)-6-	1	Z12173							
sulfatase (Sanfilippo disease IIID) (GNS) (non- exact 56%)									·
glucose transporter-like protein-III (GLUT3)	1	M20681		+	+	+	+	+	
glucose transporter-like protein-III (GLUT3) (low match)	1	M20681							
glucosidase, alpha; acid (Pompe disease, glycogen storage disease type II) (GAA)	1	Y00839	+	+		*		+	
glucosidase, beta; acid (includes glucosylceramidase) (GBA)	1	K02920	+.	+	+	1.		+	
glutamate dehydrogenase	1	M20867		+	+	+	+	+	
glutamate-ammonia ligase (glutamine synthase) (GLUL)	. 12	X59834	+	+	+	+		+	
glutamate-ammonia ligase (glutamine synthase) (GLUL) (low score)	1	Y00387	·						
glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), catalytic (72.8kD) (GLCLC)	1	M90656				+			
glutamine cyclotransferase	1	X71125		+	+		1		
glutamine-fructose-6- phosphate transaminase 1 (GFPT1)	1	M90516		+		+			
glutaminyl-tRNA synthetase	1	X72396			· ·		•		
glutaminyl-tRNA synthetase (QARS)	6	X76013	+	+	+	+		+	
glutamyl-prolyl-tRNA synthetase (EPRS)	1	X54326							
glutathione peroxidase 1 (GPX1)	2	M21304	+	+	+	+	+	+	·
glutathione peroxidase 4 (phospholipid hydroperoxidase) (GPX4)	1	X71973	+	+	+	+	·	+	
glutathione S-transferase pi (GSTP1)	1	U30897		+	+	+	+	+	·
glutathione S-transferase subunit 13 homolog	1	AF070657							
glyceraldehyde-3- phosphate dehydrogenase (GAPD)	12	J02642					+		
· <del></del>	·	<del></del>	15	<del></del>			•		

WO 00/40/49			•					• •	C1/CA00/00003
glycogenin (GYG)	1	U31525	1.	+	+	+		+	
glycophorin C (Gerbich blood group) (GYPC)	1	X12496		+	+	+		+	
glycoprotein M6B (GPM6B)	1.	U45955		+	+				
glycyl-tRNA synthetase (GARS)	1	U09587		+	+	+		+	
glyoxalase I (lactoyl	1	L07837	+	+	+	+	-	+	
glutathione lyase) (GLYI) golgi autoantigen, golgin	1	U51587		+		- +	-		
subfamily a, 1 (GOLGA1) golgi autoantigen, golgin	1 .	L06147	:		<u> </u>		•		
subfamily a, 2 (GOLGA2) (non-exact, 70%)									
golgi autoantigen, golgin subfamily a 4 (GOLGA4)	1	U31906							
golgi autoantigen, golgin	. 1	X75304		+	+	+		+	
subfamily b, macrogolgin (with transmembrane signal), 1 (GOLGB1)					,				
gp25L2 protein	4	X90872		-	<del> </del>	├	$\vdash$		
grancaldin	8	M81637		+	+	+	-	$\vdash$	
granulin (GRN)	16	X62320	+	+	+	+	<del>                                     </del>	+	
granulin (GRN) (low match)	1	X62320		<u> </u>	-	<del>                                     </del>	_	-	
Granulysin (NKG5)	5	M85276	+	<del> </del>		1		+	-
granzyme A (granzyme 1,	1:	M18737	+	+	· +	+	-	+	
cytotoxic T-lymphocyte- associated serine esterase (3) (GZMA)									
GRB2-related adaptor protein (GRAP)	1 .	U52518	Tonly	J					
Grb2-related adaptor protein 2 (GRAP2)	. 1	AF090456	. T				+	<u> </u>	
GRO1 oncogene	1	X54489		<del>                                     </del>	ļ -	. +	<del>                                     </del>	+	
(melanoma growth stimulating activity, alpha) (GRO1)									
growth arrest and DNA- damage-inducible gene (GADD153)	1	S40706							
growth arrest-specific 7 (GAS7)	4	AB007854		•	+				
growth factor receptor- bound protein 2 (GRB2)	1	X62852	В	+			+	+	
GS1 (protein of unknown function)	1	M86934		+	+	+			
GS3955	4	D87119		+	+	+		+	
GTP binding protein 1 (GTPBP1)	1	U87964	· ·	+	+	+		·	
GTP binding protein similar to S. cerevisiae HBS1 (HBS1)	1	U87791		+	+	+		+	· ·
GTPase activating protein- like (GAPL)	1	AB011110		+	+	+		+	high fetal brain
GTP-binding protein (low match)	1	Z49068							
GTP-binding protein G(K), alpha subunit (=G(I)	1	P08754				Γ	·		
ALPHA-3)(=GTP-binding regulatory protein Gi alpha-3 chain)				· .					
Gu protein (GURDB)	2	U41387	+		+	+	1	+	
guanine nucleotide binding protein	1			1		T		T	
guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 2 (GNAI2)	4	J03004	+	+	+	+		+	

VVO 00/40/49									
guanine nucleotide binding	. 7	M20597	. +	+	+	+		+	
protein (G protein), alpha		·			.			.	
inhibiting activity					- 1				
polypeptide 3 (GNAI3)									
guanine nucleotide binding	2	X04409	B, T	+			+	+	
protein (G protein), alpha		,			1			1	
stimulating activity		·			1				
polypeptide 1 (GNAS1)		Z18859		-					
guanine nucleotide binding protein (G protein), alpha	. 1	210009			. !				
transducing activity	-	,							l · •
polypeptide 2 (GNAT2)									
quanine nucleotide binding	2	AF017656		+	+	+		+	
protein (G protein), beta 5	_								
(GNB5)									
guanine nucleotide binding	5	M36430	+	+	+	+	+	+	
protein (G protein), beta				1					
polypeptide 1 (GNB1)									
guanine nucleotide binding	2	AF011496		+	+	+			
protein (G protein), q									·
polypeptide (GNAQ)		LOSCOS				+			
guanine nucleotide binding	1	L25665	+	+	+	*		+	• • • •
protein-like 1 (GNL1) guanine nucleotide		L13857	· +	+	+	+		$\vdash$	<del> </del>
exchange factor		F13031	<b>.</b>		*	[			
quanine nucleotide	1	X15610	+	+	+:	+	<del> </del>	+	
regulatory factor (LFP40)	•	X 130 10	•	'	'				
guanine nucleotide	1	U72206	+	+	+	+	$\vdash$	+	
regulatory factor (LFP40)	•								
GUANINÉ NUCLEOTIDE-	1	P25388		$\vdash$		<b> </b>			
BINDING PROTEIN BETA								1	.
SUBUNIT-LIKE PROTEIN	•	,	·	1				].	
12.3 (P205) (RECEPTOR						1		•	·
OF ACTIVATED PROTEIN									
KINASE C 1) (RACK1)						<u> </u>		L	
GUANINE-	1	U10860	•		+	1	i	l	
MONOPHOSPHATE					ł		1	i	
SYNTHETASE (GMPS)	······································	M24470						<b>.</b>	
guanosine monophosphate reductase (GMPR) (non-	1	M2 <del>44</del> 70		1		•		l	
exact, 72%)		ļ ·		ĺ				1	
quanosine-diphosphatase	1	AF016032		<del></del>	<del>                                     </del>		-	-	
like protein	•	7.11 0 10002						1	
guanylate binding protein	2	M55542		+	+	+	+	+	
1. interferon-inducible.				ì	ļ	l		i	
67kD (GBP1)				l ·			ĺ	l ·	
quanylate binding protein	6	M55543	+	+	+	+		+	
2, interferon-inducible					· .			l	
(GBP2)		l	L		<u> </u>		Ь_	L	
H2A histone family,	1	Z83742			l		·		
member C (H2AFC)		L			L.	<u> </u>	L	L.	
H2A histone family,	2	AF041483	+	+	+	+	l	+	
member Y (H2AY)		700-00	<b></b>	<u> </u>	<u> </u>	<del> </del>	<u> </u>	<u> </u>	high in adrenal gland
H2B histone family,	2	Z80783	+	+	+	+	+	+	Inign in adrenai giand   Itumor
member L (H2BFL)		DOGDED		<del> </del>		├	<del></del>	<del> </del>	(United
h2-calponin	1	D86059	<u> </u>		L				<u></u>
H-2K binding factor-2	1	L08904		+	+	+		+	
H3 histone family, member	1	Z83735	i	1			$\overline{}$		
K (H3FK)	· .		1	1		1		L.,	<u> </u>
H3 histone, family 3A	7	M11353	+	+	+	+		+	high in ovary
(H3F3A)		-	L	<u></u>		<u> </u>			
H3 histone, family 3B	15	Z48950	+	. +	+	+		+	high in endothelial
(H3.3B) (H3F3B)	<u>[ </u>							نا	cells
hbc647	1	U68494		. +	+	+	+	-	
heat shock 27kD protein 1	1	U12404		+	+		+	+	
(HSPB1)	·			1	1		L		
heat shock 40kD protein 1	4	D85429	+	+	. +	+	+	+	high in testis
(HSPF1)		,	l	<u>_</u>	Ľ	L	L_	<u>L</u> _	
heat shock 60kD protein 1	3	M22382	+	+	+	+	+	+	1
(chaperonin) (HSPD1)	L	<u> </u>	l		<u> </u>				ļ.,
heat shock 70kD protein 1	7	M59828	+	+	+	+	+	+	high in activated T
(HSPA1A)	L		L	<u> </u>		<u> </u>	L	<u> </u>	cells

WO 00/40/49		•							
heat shock 70kD protein 5 (glucose-regulated protein, 78kD) (HSPA5)	13	X87949		+	+		+		
heat shock 70kD protein 6 (HSP708') (HSPA6)	4 .	X51757	+	+	+				
heat shock 70kD protein 9B (mortalin-2) (HSPA9B)	2	L15189		+	+	+	+	.+	
HEAT SHOCK COGNATE	1	P11142		-					
heat shock factor binding protein 1 (HSBP1)	2	AF,068754							
heat shock protein 90	13	M27024	+	+	+	+	+	+	high in many libraries
heat shock protein, DNAJ- like 2 (HSJ2)	1	D13388		+	+		+	. +	
Hect (homologous to the E& A.P. (b'BE3A) carboxyl terminus) domain and RCC1 (CHC1)-like domain	1.	U50078		+	+ }	+	-		
(RLD) 1 (HERC1) hect domain and RLD 2 (HERC2)	<del>- 1</del>	AB002391	+	+	+	+		+	
helicase-like protein (HLP)	1	X98378	+	+	<del></del>	+		+	<del></del>
helix-loop-helix protein HE47 (E2A)	1	M65214						+	
hematopoietic cell-specific Lyn substrate 1 (HCLS1)	18	X16663	. +		+	+		+	
heme oxygenase (decycling) 1 (HMOX1)	1	X06985		+		+	+	+	
HEMOGLÓBIN ALPHA CHAIN	1	P19015							
hemoglobin beta (beta globin)	5	AF117710							
hemoglobin, alpha 1 (HBA1)	301	√00491			+		+	+	
hemoglobin, alpha 1 (HBA1) (low match)	1	V00491				Ŀ		Ľ	·
hemoglobin, alpha 1 (low match)	1	V00493		ļ	-				·
hemoglobin, alpha 1 (non- exact, 76%)	1	J00153				L.			
hemoglobin, alpha 1 (non- exact, 82%)	1	V00493					Ļ	<u> </u>	high in many libraries
hemoglobin, beta (HBB)	129	V00497	+	+	+		+	+	nigh in many libraries
hemoglobin, beta (HBB) (low match)	1	V00497							
hemoglobin, beta (HBB) (low match)	1	L48220		1	L.,		_	<u> </u>	
hemokine (C-X-C motif), receptor 4 (fusin) (CXCR4)	1	D10924	+	+	+			+	
hemopoietic cell kinase (HCK)	5	M16591				Ļ	_	+	
hepatitis C-associated microtubular aggregate protein p44	-2	D28908							
hepatoma-derived growth factor	1	D16431	+	+	+	+		+	
Hermansky-Pudlak syndrome (HPS)	2	U65676							
HERV-E integrase (non- exact 76%aa)	1.	AF026246							
heterogeneous nuclear protein similar to rat helix destabilizing protein (FBRNP)	2	S63912	·	+	+			*	
heterogeneous nuclear nbonucleoprotein (C1/C2) (HNRPC)	4	M16342							· ·
heterogeneous nuclear ribonucleoprotein A/B (HNRPAB)	1	M65028	•	*	+	+	+	+	

heterogeneous nuclear ribonucleoprotein A1 (HNRPA1)	20	X12671	. +	+	+	+	+	+	High in alveolar rhabdomyosarcoma
heterogeneous nuclear ribonucleoprotein A2/B1 (HNRPA2B1)	3	M29064	+	+	+	+	+	+	High in activated T cell, fetal brain
neterogeneous nuclear ribonucleoprotein D (hnRNP D)	2	D55673	+	+	+	+	+	+	
heterogeneous nuclear ribonucleoprotein D-like (HNRPDL)	5	D89092	+	+	+	+	+	+	
heterogeneous nuclear ribonucleoprotein F (HNRPF)	-1	L28010	+	+	+	+		+	
heterogeneous nuclear ribonucleoprotein F (HNRPF) (83%)	1	L28010							
heterogeneous nuclear ribonucleoprotein G (HNRPG)	2	Z23064	·	+	+	+		+	
heterogeneous nuclear ribonucleoprotein H (HNRPH) (FTP-3)	3	P55795							
heterogeneous nuclear ribonucleoprotein H (HNRPH) (low match)	1.	P31943							
heterogeneous nuclear ribonucleoprotein H1 (H) (HNRPH1)	2	L22009		+	+	+		+	
heterogeneous nuclear ribonucleoprotein K (HNRPK)	21	S74678	+	+	+	+	+	+	
heterogeneous nuclear ribonucleoprotein R (HNRPR)	1	AF000364		+	+	+	+	+	
heterogeneous nuclear ribonucleoprotein U (scaffold attachment factor A) (HNRPU)	3	X65488	+	+	+	+	+	+	
hexokinase 1 (HK1)	2	X66957	<del></del>	+	+	+	-	+	
hexokinase 2 (HK2)	3	Z46376	+	++	+	+	-	+	
hexokinase 3 (HK3)	2	U51333		+	<u> </u>		-	₩	
hexosaminidase A (alpha	1	S62047	<del></del> -	+		-	-	-	- · · · · · · · · · · · · · · · · · · ·
polypeptide) (HEXA HGMP07I gene for	2	U76377		-			_		
olfactory receptor High density lipoprotein	2	M64098	+	+	+	+	+	+	
binding protein (HDLBP) high-mobility group	5	X12597	+	+	+	_	+	+	
(nonhistone chromosomal) protein 1 (HMG1)			• • • • • • • • • • • • • • • • • • •			*		Ľ	
high-mobility group (nonhistone chromosomal) protein 1 (HMG1) (non- exact 60%)	1.	D63874							
High-mobility group (nonhistone chromosomal) protein 17 (HMG17)	2	M12623	+	+	+	+		+	
high-mobility group (nonhistone chromosomal) protein 2 (HMG2)	2	M83665	+	+	+	+	+	+	
high-mobility group (nonhistone chromosomal) protein isoforms I and Y	2	L17131	+	+	+		+	+	
high-risk humanpapilloma viruses E6 oncoproteins targeted protein E6TP1 beta (=A8007900 KIAA0440)	<b>1</b> "	AF090990.1							
N AAU <del>44</del> U)									

Instituty   Inst	WO 00/40/49								Ļ	.17CA00/00003
Instruction   Instruction		2	Z11518	. +	+	+	+	+	+	
histone deacetylase 1	histocompatibility antigen	1	U31372							
Instone deacetylase 1	histone deacetylase 1	4	U50079	, +	+	+	+		+	
histone deacetylase 6 (NY- CO-9) HKZ gene for hexokinase II	histone deacetylase 1	2	D50405	+	. +	+	+		+	
HKZ gene for hexokinase     1	histone deacetylase 5 (NY-	1	AF039691		+	+		·		
International Content		1	Z46362							
ILIA class   Neavy chain		2	U91928				+			
ILX class   I   Cus C   heavy   1   X88536	HLA class I heavy chain	1							-	·
HLA class   I SB 4-beta   1	HLA class I locus C heavy	1	X58536				-			
HLA class   II region	HLA class II SB 4-beta	1	- X03022					<u> </u>		
Containing NOTCH4 gene		1	U89335	+	+	+	+		+	
HLA-A'7402	containing NOTCH4 gene		·		<b> </b>	<u> </u>		ļ	<u> </u>	
HLA-A11		1	1 -				<u> </u>	ļ		
HLA-B	· · —	-					<u> </u>		<u> </u>	
HLA-B							<u> </u>	<u> </u>	├	
FILA-B	1						<u> </u>	<u> </u>	├	·
HLA-B associated								├	<del> </del>	
HLA-B associated transcript-1 (D6S81E)	4							↓	-	
HLA-B associated   2	HLA-B associated			+	+	+	+	+	+	
HLA-Bw72 antigen	HLA-B associated	. 2	M33509	+	+	+	+	-		
HLA-Bw/2 antigen 119 L09/36 + + + + + high in many libraries HLA-C gene (HLA-C worth) 1 D83957 Cw'0701 allele) 1 D83957 HLA-Cw'0701 9 Z46810	HLA-B*1529	4	D44501		-		-	$\vdash$	-	
HLA-C gene (HLA-Cw*0701 allele)  HLA-Cw*0801		119	L09736	+	+	+	+	+	+	high in many libraries
HLA-Cw'0801	HLA-C gene (HLA-	1	D83957	·						
HLA-Cw*1203		9	Z46810		1	•		<u> </u>	$\vdash$	
HLA-DC class	HLA-Cw*0801	1	D64151					<u> </u>	t	
histocompatibility antigens alpha-chain (=K01160)  HLA-DR alpha-chain 17 M60333 + + + + + + high in spleen  HLA-F (leukocyte antigen 3 X17093 + + + + + + high in spleen  HMG box containing 3 AF019214 protein 1  hMLH1 (=U83845) 1 AB017806.1  Hmob33 3 Y14155 + HMT1 (hnRNP 2 U80213 + + + + + + + + + + + + + + + + + + +	HLA-Cw*1203	1	D64146						1	
HLA-DR alpha-chain 17 M60333 + + + + + + high in spleen  HLA-F (leukocyte antigen 3 X17093 + + + + + + high in spleen  HMG box containing 3 AF019214 protein 1  hMLH1 (=U83845) 1 AB017806.1  Hmob33 3 Y14155  HMT1 (hnRNP 2 U80213 + + + + + + + + + + + + + + + + + + +	histocompatibility antigens alpha-chain (=K01160)	2	X00370							
F) HMG box containing protein 1 hMLH1 (=U83845)	HLA-DR alpha-chain	17		+	+	+	+	+	+	high in spleen
HMG box containing   3	(F)	·				+	+		+	
Hmob33 3 Y14155 4 + + + + + + + + + + + + + + + + + +	HMG box containing protein 1		_							
HMT1 (hnRNP 2 U80213 + + + + + + + + + + + + + + + + + + +			1			<u> </u>	L_	_	_	
methyltransferase, S. cerevisiae)-like 1 (HRMT1L1) hnRNP C1/C2			1 '						<u> </u>	
homeobox (=X58250	methyltransferase, S. cerevisiae)-like 1	2	U80213	•	+	*	*		*	
Mouse homeo box protein, put. transcription factor involved in embryogenesis and hematopoiesis)  homeobox protein (HLX1)		2	D28382	· · · · · · · · · · · · · · · · · · ·	t			Ť		1
homeobox protein (HLX1)	Mouse homeo box protein, put. transcription factor involved in embryogenesis	1	M60721							
homeodomain-interacting 1 AF004849 + + + + + + homeolog of Drosophila past 2 AF001434 + + + + + + + homeolog of yeast (S. 3 D50916 + + + + + + + + homeolog of yeast (S. 3 D50916 + + + + + + + + homeolog of yeast (S. 3 D50916 + + + + + + + + + homeolog of yeast (S. 3 D50916 + + + + + + + + + + + homeolog of yeast (S. 3 D50916 + + + + + + + + + + + + homeolog of yeast (S. 3 D50916 + + + + + + + + + + + + + + + + + + +	homeobox protein (HLX1)	1	U14326				Γ	T		
homolog of Drosophila past 2 AF001434 + + + + + + + + + + + + + + + + + +	homeodomain-interacting	1	AF004849	+		+	+	T	+	
homolog of yeast (S. 3 D50916 + + + + +	homolog of Drosophila past (PAST)	2	AF001434	+	+	+	+			
	homolog of yeast (S.	3	D50916		+	+	+		+	

HPV16 E1 protein binding	
1:	<del></del>
HRX-like protein 1 Y08836 (=AF010403 ALR)	
hsc70 gene for 71 kd heat 3 Y00371 shock cognate protein	
HSPC012 1 AF077036.1	
HSPC021 1 AF077207.1	
HsPex13p 1 U71374	
htra2-beta-2 1 U87836 + + + + +	
HU-K4 1 U60644	· .
hunc18b2 1 U63533 + + + + +	
HUNKI 1 Y12059 + + + + + +	· · · · · · · · · · · · · · · · · · ·
huntingtin-interacting 1 AF049528 protein HYPA/FBP11 (HYPA)	
NVps41p (HVPS41) 1 U87309	
hydroxyacyl-Coenzyme A 1 U04627 + + + +	
dehydrogenase/3-ketoacyl- Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional	
protein), alpha subunit (HADHA)	
hydroxyacyl-Coenzyme A 1 D16481 + + + + + + + dehydrogenase/3-ketoacyl-Coenzyme A	
thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB)	
hydroxysteroid (17-beta) 1 U34879 + + + dehydrogenase 1	100
(HSD17B1)	
hypothetical protein 1 hypothetical protein 1	
hypothetical protein (AL008729) (dJ257A7.2)	
hypothetical protein 1 U96629 (CiT987SK_2A8_1  chromosome 8)	
hypothetical protein (clone 1 AF055004 24640)	
hypothetical protein (clone 1 Z70222 ICRFp507G2490).	
hypothetical protein 1 AL022238 (dJ1042K10.4) (non-exact 76%)	
hypothetical protein 2 AL031432 (dJ465N24.1 similar to predicted yeast and worm proteins)	
hypothetical protein 2 AL008730 (dJ487J7.1.1)	
hypothetical protein 2 AL023653 (dJ753P9.2)	
hypothetical protein 1 AL050131.1 (DKFZp586I111) hypothetical protein 1 AL008729	
(J257A7.2) AL008/29 hypothetical protein 1 AB007900	
(KÍAA0440) (=AF026504 R.norvegicus SPA-1 like protein)	
hypothetical protein (L1H 3' 1 region)	
hypothetical protein (S164) 1 P49756	

hypothetical protein (similar to thrombospondin) (nonexact 56%) hypothetical protein 3 hypothetical protein B (HSU47926) (non-exact, 56%) hypothetical protein from 3 U50532 + + + + + + + + + + + + + + + + + + +
hypothetical protein B (HSU47926) (non-exact, 56%) hypothetical protein from 3 U50532 + + + + + + + BCRA2 region (CG005) hypoxia-inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) (HIF1A) la-associated invariant gamma-chain (clones fambda-y (1,2,3)) iduronate 2-sulfatase 2 M58342 + + + + + + (Hunter syndrome) (IDS) lig heavy chain V region 1 L20779 (=D11016) lig heavy chain variable region (VH4DJ) (clone T14,4) lig heavy chain variable 1 Z75392 region (VH4DJ) (clone 1 Z75392 region (VH4DJ) (clone 1 Z75392 region (VH4DJ) (clone
(HSU47926) (non-exact, 56%) hypothetical protein from BCRA2 region (CG005) hypoxia-inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) (HIF1A) la-associated invariant gamma-chain (clones tambda-y (1,2,3)) iduronate 2-sulfatase (Hunter syndrome) (IDS) lig heavy chain V region (DIS) lig heavy chain variable region (H4DJ) (clone T14.4) lig heavy chain variable region (VH4DJ) (clone ligheavy chain variable region (VH4DJ) (clone region (VH4DJ) (clone ligheavy chain variable region (VH4DJ) (clone ligheavy chain variable region (VH4DJ) (clone ligheavy chain variable region (VH4DJ) (clone ligheavy chain variable region (VH4DJ) (clone ligheavy chain variable region (VH4DJ) (clone ligheavy chain variable region (VH4DJ) (clone ligheavy chain variable ligheavy chain varia
BCRA2 region (CG005) hypoxia-inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) (HIF1A) la-associated invariant gamma-chain (clones fambda-y (1,2,3)) iduronate 2-sulfatase (Hunter syndrome) (IDS) lig heavy chain V region (ED1016) lig heavy chain variable approximately considered and syndrome to the syndr
alpha subunit (basic helix-loop-helix transcription factor) (HIF1A)  Ia-associated invariant gamma-chain (clones fambda-y (1,2,3))  Iduronate 2-sulfatase 2 M58342 + + + + + + (Hunter syndrome) (IDS)  Ig heavy chain V region 1 L20779 (=D11016)  Ig heavy chain variable 2 M34024 region (VH4DJ) (clone T14.4)  Ig heavy chain variable 1 Z75378 region (VH4DJ) (clone T14.4)  Ig heavy chain variable 1 Z75392 region (VH4DJ) (clone T1900 (Cl
la-associated invariant gamma-chain (clones tambda-y (1,2,3)) liduronate 2-sulfatase 2 M58342 + + + + + + HILLOT79 (Hunter syndrome) (IDS) lig heavy chain V region 1 L20779 (=D11016) lig heavy chain variable 2 M34024 region 2 M34024 region (VH4DJ) (clone T14.4) lig heavy chain variable 1 Z75392 region (VH4DJ) (clone 1 Z75392 region (VH4DJ) (clone 1 Z75392
iduronate 2-sulfatase (Hunter syndrome) (IDS)  Ig heavy chain V region (L20779 (lendrome) (IDS)  Ig heavy chain variable 2 M34024 region  Ig heavy chain variable 1 Z75378 region (VH4DJ) (clone T14.4)  Ig heavy chain variable 1 Z75392 region (VH4DJ) (clone 1 passay chain variable 1 Z75392 region (VH4DJ) (clone
Ig heavy chain V region 1 L20779 (=D11016) Ig heavy chain variable 2 M34024 region Ig heavy chain variable 1 Z75378 region (VH4DJ) (clone T14.4) Ig heavy chain variable 1 Z75392 region (VH4DJ) (clone
Ig heavy chain variable 2 M34024 region Ig heavy chain variable 1 Z75378 region (VH4DJ) (clone T14.4) Ig heavy chain variable 1 Z75392 region (VH4DJ) (clone
Ig heavy chain variable 1 Z75378 region (VH4DJ) (clone T14.4) Ig heavy chain variable 1 Z75392 region (VH4DJ) (clone
T14.4) Ig heavy chain variable 1 Z75392 region (VH4DJ) (clone
region (VH4DJ) (clone
Ig J chain 1 M12378
lg kappa 1 S49007
IG kappa light chain 1 X63398 variable region A20
Ig kappa light chain, V- and 1 D90158 J-region (=X59315)
Ig lambda light chain 1 Z85052 variable region (26- 34ITIIIF120)
Ig mu-chain VDJ4-region 1 M16949
Ig rearranged anti-myelin 1 M29469 kappa-chain (V-J4-region, hybridoma AE6-5)
Ig rearranged H-chain 2 M97920 mRNA V-region
Ig rearranged light-chain V 1 M74020 region (=D90158)
IGF-II mRNA-binding 1 U97188 + + + + + protein 3 (KOC1) (non-lexact, 75%)
IgG Fc binding protein 1 D84239 + + + + + (FC(GAMMA)BP)
igG heavy chain variable 1 M83136 region (vH26)
IgM heavy chain (C mu, 1 X14939 membrane exons)
IkB kinase-beta (IKK-beta) 1 AF029684
IL-1 receptor type II 1 U14177
IL2-inducible T-cell kinase 2 S65186 (ITK)
immediate early protein 1 M62831 + + + + + (ETR101)
Immunogloblin light chain 1 D87018 (lambda)
immunoglobulin (CD79A) 1 Y08915 B, T + + + binding protein 1 (IGBP1)
immunoglobulin C (mu) and 2 X57331 C (delta) heavy chain (=K02878)
immunoglobulin G Fc 1 Z46223 receptor IIIB
immunoglobulin gamma 3 3 Y14737 + + high in many libra (Gm marker) (IGHG3)

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immunoglobulin gamma heavy chain variable region (=X61011)	1	Z66542							
immunoglobulin heavy ichain (VI-3B)	1	X62109							
immunoglobulin heavy chain J region	1	X86356							
immunoglobulin heavy chain J region, B1 haplotype	2	X86355							
immunoglobulin heavy chain variable region (IGH) (clone 21u-48)	1	AF062126						·	
immunoglobulin heavy chain variable region (IGH) (clone 23u-1)	1	AF062212							
immunoglobulin heavy chain variable region V1-18 (IGHV@) (=X60503)		M99641		,					
immunoglobulin heavy chain variable region V3-43 (IGHV@)		M99672							
immunoglobulin heavy chain variable region V3-7 (IGHV@)	.3	M99649							
immunoglobulin IgH heavy chain Fd fragment	1	U07986							`.
immunoglobulin kappa light chain		X58081							
immunoglobulin kappa light chain V-segment A27		X12686			-				
immunoglobulin light chain	1	D86990	1	ŀ					
immunoglobulin light chain (low match)	1	D86996							
immunoglobulin light chain variable region (lambda IIIb subgroup) from IgM rheumatoid factor	1	L29157							
immunoglobulin M heavy chain V region=anti-lipid A antibody	1	S50735							
immunoglobulin mu (IGHM)	9	X57086	+	+		+		+	
immunoglobulin mu binding protein 2 (IGHMBP2)	. 1	L24544	Т	+			+		
immunoglobulin superfamily, member 2 (IGSF2)	1	Z33642	·						
immunoglobulin VH mRNA (487 bp) (=M99652 immunoglobulin heavy	1	X61013							
chain variable region V3-11  (IGHV@))					,				
imogen 38 (IMOGEN38)	1	Z68747		+	+	+		+	
IMP (inosine monophosphate)	. 1	J05272	+	+	+	+			
dehydrogenase 1 (IMPDH1)									
IMP (inosine monophosphate) dehydrogenase 2 (IMPDH2)	2	L39210	+ .	+	+	+		+	
inc finger protein 151 (pHZ-67) (ZNF151)	. 1	Y09723	+	+	+	+		+	
inc finger protein, C2H2, rapidly turned over (ZNF20)	7	AF011573		+	+				
inducible poly(A)-binding protein (IPABP)	1	U33818	+	+	. +	+		+	
inducible poly(A)-binding protein (IPABP) (low match)	1	U33818			·				

	•							• •	C17CA00/00003
inducible protein (Hs.80313)	2	L47738	+	+	+	+		+	
inhibitor of DNA binding 2, dominant negative helix- loop-helix protein (ID2)	4	М97796	+	+	+.	+	+	+	
inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase complex-	2	AF044195							
associated protein (IKBKAP)		,					·		
inositol 1,3,4-trisphosphate 5/6-kinase		U51336	+	+		+	+	+	
inositol 1,4,5 trisphosphate receptor type 1 (ITPR1) inositol 1,4,5-trisphosphate	1	U23850 X57206	В	+	+	+	+	_	
3-kinase B (ITPKB)	_ <del>_</del>	S38980		`	<u> </u>		ļ .		<u> </u>
inositol polyphosphate-5- phosphatase, 145kD (INPP5D)	2	U84400	+	+	+	+		+	
Ins(1,3,4,5)P4-binding protein	1	X89399		+				+	
insulin-like growth factor 2 receptor (IGF2R)	5	Y00285	+	+	+	+		+	
integral membrane protein 1 (ITM1)	1	L38961			+	+		+	
integral membrane protein 2C (ITM2C)	1	AF038953	T		+		+	+	
integral membrane protein Tmp21-I (p23)	3	U61734	+	+	+	+	+	+	
integrin beta 4 binding protein (ITGB4BP)	2	AF047433		<u> </u>	+		<u> </u>	+	
integrin, alpha 2b (platelet glycoprotein lib of lib/lila complex, antigen CD41B) (ITGA2B)	3	M34480		+			+		
integrin, alpha 5 (fibronectin receptor, alpha polypeptide) (ITGA5)	4	X06256	+	+	+		+	+	
integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide) (ITGAL)	6	Y00796							
integrin, alpha M (complement componentreceptor 3,	1	M18044							
alpha; also known as CD11b (p170), macrophage antigen alpha polypeptide) (ITGAM)									
integrin, alpha X (antigen CD11C (p150), alpha polypeptide) (ITGAX)	1	M81695	+	+				+	
integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2 MSK12) (ITGB1)	2	X07979							
integrin, beta 2 (antigen CD18 (p95), lymphocyte function-associated antigen 1; macrophage antigen 1 (mac-1) beta subunit) (ITGB2)	32	M15395	+	+		+		+	
integrin, beta 7 (ITGB7)	1	M68892	+						
Integrin-linked kinase (ILK)	1	U40282	+	+	+	+		+	
intercellular adhesion molecule 1 (CD54), human rhinovirus receptor (ICAM1)	1	J03132	* :			+	+	+	
intercellular adhesion molecule 2 (ICAM2)	1	X15606	+	+	+	+		+	

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intercellular adhesion molecule 3 (ICAM3)	6	X69819	+					+	
intercellular adhesion molecule 4, Landsteiner-	1	L27670						+	
Wiener blood group (ICAM4)									· · · · · · · · · · · · · · · · · · ·
Interferon consensus sequence binding protein 1 (ICSBP1)	1	M91196	· W,7	lymp	noma			_=	
Interferon consensus sequence binding protein 1 (ICSBP1) (low match)	1	M91196							
interferon regulatory factor 2 (IRF2)	4	X15949	+	+	+	+			
interferon regulatory factor1 (IRF1)	4	L05072	+	+	+	+		+	
interferon regulatory factor5 (IRF5)	1 .	U51127	+	+		+		·	
interieron, gamma- inducible protein 16 (IFI16)	2	M63838	+	+	+	+		+	
interferon, gamma- inducible protein 30 (IFI30)	9	J03909	+	+	·	+	,	+	
INTERFERON-INDUCED GUANYLATE-BINDING PROTEIN 1 (GUANINE NUCLEOTIDE-BINDING PROTEIN 1) (non-exact	<b>1</b>	P32455							
62%) interferon-induced protein	3	X84958	· ·	+	+	+		+	
17 (IFI17) interferon-induced protein 54 (IFI54)	5	M14660							
interferon-inducible (1-8D)	5	X57351	T		+		+	+	
interferon-inducible (1-8U)	1	X57352			+		+	+	
interferon-related developmental regulator 1 (IFRD1)	5	Y10313		.+	+			+	
interferon-stimulated transcription factor 3, gamma (48kD) (ISGF3G)	2	M87503		+		+		+	
interleukin 1 receptor, type	1	U64094				+	Ė		
Interleukin 10 receptor, beta (I.10RB)	1	U08988	Tactivat	éd	+			+	
interleukin 12 receptor, beta 1 (IL12RB1)	2	U03187	+						only found in T cell
interleukin 13 receptor, alpha 1 (IL13RA1)	2	Y09328		+	+	+	+	+	
interleukin 16 (lymphocyte chemoattractant factor) (IL16)	6	U82972		*				ŀ	
interleukin 18 receptor 1 (IL18R1)	1	U43672							
interleukin 2 receptor, beta (IL2RB)	9	M26062			+	<u> </u>			
interleukin 2 receptor, gamma (severe combined immunodeficiency) (IL2RG)	6	D11086	+		Ĺ				
interleukin 4 receptor (IL4R)	3	X52425	+	+		+		+	
interleukin 6 receptor (IL6R)	5	X12830		+			ļ .	+	
interleukin 6 signal transducer (gp130, oncostatin M receptor) (IL6ST)	. <b>1</b>	M57230							
interleukin 7 receptor (IL7R)	14	M29696	+	1.				+	
interleukin 7 receptor (IL7R) (low match)	1	AF043123							
interleukin 8 (IL8)	8	Y00787	+		+		+		High in activated T cells, bone and pancreatic islets

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interleukin 8 receptor alpha (IL8RA)	11	L19591						•	
interleukin 8 receptor, beta (IL8RB)	14	M94582							
interleukin enhancer binding factor 2, 45kD (ILF2)	3	U10323	+	+	+	+	+	+.	high in uterus
interleukin enhancer binding factor 3, 90kD (ILF3)	2	U10324							
interleukin-1 receptor- associated kinase 1 (IRAK1)	2	L76191		+	+	+		+	
interleukin-1 receptor- associated kinase 1 (low match)	1	U52112							
interieuxin-'iU receptor, alpha (IL10RA)	5	U00672	•	7 😛	+	+			
interleukin-11 receptor, alpha (IL11RA)	7	Z38102		+	+				·,
INTERLEUKIN-14 PRECURSOR (IL-14) (HIGH MOLECULAR WEIGHT B-CELL GROWTH FACTOR) (HMW-BCGF) (non-exact	1	P40222							
46%) intestinal carboxylesterase; liver carboxylesterase-2 (ICE)	1	U60553		+	• .		+.		
inversin protein (non-exact 52%)	1	AF084367							
IQ motif containing GTPase activating protein 1 (IQGAP1)	6	L33075							
IQ motif containing GTPase activating protein 2 (IQGAP2)	1	U51903		+		+			
isocitrate dehydrogenase 1 (NADP+), soluble (IDH1)	1,	AF020038	+	+	+	+	+	+	
isocitrate dehydrogenase 2 (NADP+), mitochondrial (IDH2)	2	X69433	+	+	+	+	+	+	
isocitrate dehydrogenase 3 (NAD+) aipha (IDH3A)	2	U07681			+				
isocitrate dehydrogenase 3 (NAD+) gamma (IDH3G)	1	Z68907	+	+	+	+		+	
isolate Aus3 cytochrome b (CYTB) isolate TzCCR5-179 CCR5	1	AF042516 AF011524				_			
receptor (CCR5)	5	X17025	+	+	+	+	_	+	
delta isomerase (IDI1)  Janus kinase 1 (a protein	4	M64174	+	<u> </u>	-	ļ.		+	
tyrosine kinase) (JAK1) Janus kinase 2 (a protein	1	AF005216		ļ		ļ. -	_	<u> </u>	
tyrosine kinase 2 (a protein tyrosine kinase) (JAK2) Jk-recombination signal	2	L07876			<b> </b>	$\vdash$	<u> </u>		
binding protein (RBPJK)  JM1 protein	1	AJ005890	-	+	<u> </u>	+	-	-	
jumonji (mouse) homolog	1	U57592		+	+	+		+	
(JMJ) jun D proto-oncogene (JUND)	1	X51346	+	+	+	+		+	
jun dimerization protein	1	AF111167				Ļ		Ļ	only found in germ
junction plakoglobin (JUP)	1	M23410		+	+	+	<u> </u>	+	<u> </u>

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kangai 1 (suppression of	1	U20770	+	+	+	+	+	+	
tumorigenicity 6, prostate; CD82 antigen (R2			j						
leukocyte antigen.									· .
antigen detected by monoclonal and antibody		. •			·	l	1		
IA4)) (KAI1)		,		ļ ·					
karyopherin (importin) beta	2	L39793	+	+	+	+	+	+	
1 (KPNB1)							<u> </u>		
karyopherin (importin) beta 2 (KPNB2)	1	U72395	+	+	+.	+	ļ	١.	
karyopherin alpha 1	1	S75295	+	+	+	<del> </del>	+	H	
(importin alpha 5) (KPNA1)				L			<u> </u>		
karyopherin alpha 2 (RAG cohort 1, importin alpha 1)	1	U09559							
(DPNA2)									•
karyopherin alpha 3	1	D89618		+			+		
(importin alpha 4) (KPNA3)				<u> </u>		<u>:</u>		<u> </u>	
karyopherin alpha 4 (KPNA4)	1	M17887		+	+	-	l	l	
Katanin (80 kDa) (KAT)		AF052432	<del> </del>	+	+	+	<del>                                     </del>	+	
KE03 protein	2	AF064604	<del> </del>	$\vdash$	-	├	<del>                                     </del>		
Kelch-like ECH-associated	1	D50922			<del>                                     </del>	-			
protein 1 (KIAA0132)				-	1				
(66%aa)		V-74000		<u> </u>		L.	ļ.,_	<u> </u>	
Keratin 8 (KRT8)	1	X74929		+	+	+	+	+	
ketohexokinase (fructokinase) (KHK)	1	X78678		+		+	+	ľ	
KIAA0001 (KIAA0001)	1	Q15391		<del>                                     </del>			┢╾	<del>                                     </del>	
(72% aa)									
KIAA0001 (KIAA0001) (76% aa)		Q15391							
KIAA0001 (KIAA0001) (non-exact 72%)	1	Q15391							. 1
KIAA0002 (KIAA0002)	5	D13627		. +	. +	+		+	
KIAA0005 (KIAA0005)	4	D13630		+	+	+	_	+	
KIAA0010 (KIAA0010)	1	D13635		+		$\vdash$		+	
KIAA0016 (KIAA0016)	1	D13641	+	+	+	+	<del>                                     </del>	+	
KIAA0017 (KIAA0017)	2	D87686		$\vdash$	<del>                                     </del>	$\vdash$		<del>                                     </del>	·
KIAA0022 (KIAA0022)	2	D14664	<u> </u>	+	+	+		<del>                                     </del>	· · · · · · · · · · · · · · · · · · ·
KIAA0023 (KIAA0023)	1	D14689		+			-	-	
KIAA0024 (KIAA0024)	1	D14694	+	+	+	+	<del> </del>	+	
KIAA0025 (KIAA0025)	1	D14695		+	+	+	+	+	· · · · · · · · · · · · · · · · ·
KIAA0026 (KIAA0026)	2	D14812		+	+	+	È	+	
KIAA0027	1	D25217		+	<del>                                     </del>	<u> </u>		<u> </u>	
KIAA0032 (KIAA0032)	2	D25217		+	+	+	ļ <u>.                                    </u>		
		·	<u> </u>	1				<u> </u>	
KIAA0040 (KIAA0040)	1 .	D25539	+	+	+	+		+	
KIAA0050 (KIAA0050)	4	D26069				<u> </u>			
KIAA0053 (KIAA0053)	17	D29642	+		+	+			
KIAA0057 (KIAA0057)	1	D31762	+	+	+	+	+		high in fetal lung
KIAA0058 (KIAA0058)	11	D31767	+		+	+		+	
KIAA0063 (KIAA0063)	3	D31884	+	+	+	+		+	
KIAA0064 (KIAA0064)	1	D31764	+	+	+	+		+	
KIAA0066	1.	D31886	.+	+	+	+		+	
KIAA0068	. 1	D38549		+	+	+	+	+	
KIAA0073	3	D38552		. +	+	+		+ .	
KIAA0081	2	D42039	·	+		+		+	
KIAA0084	2	D42043	+	+	+	+		+	
KIAA0085	26	U30498	+	+	+	+	+	+	
KIAA0088	3	D42041	+	+	+	+	+	+	
KIAA0090	2	D42044	+	+	+	+	+	+	
KIAA0092 (KIAA0092)	1	D42054		+	+	+	<u> </u>	+	

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KIAA0094	3	D42084		1: 1	+	+			
(IAA0095 (KIAA0095)	1	D42085							
KIAA0096	1	D43636	+	+	+	+		+	
(IAA0097 (KIAA0097)	1	X92474	1	+	+		+		
(IAA0099 (KIAA0099)	3	D43951	+	+	+	+	+	+	
KIAA0102 (KIAA0102)	2	D14658		+		+	+	+	
KIAA0105	1	D14661	В	+-			+	+	
KIAA0120	2	P37802		1					<del></del>
KIAA0120 (non-exact, 65%)	1	M83106							
KIAA0121 (KIAA0121)	1	D50911	+	+	+ .	+		+	
KIAA0123	1 1	D21064		+.	+	+		+	
KIAAU 128	<u> </u>	D50918	+	+	+	04 T	•	4	
KIAA0129 (KIAA0129)	1	D50919	+	+	+	+			<del></del>
KIAA0130 (KIAA0130)	1	AF055995	-	+	+	+		┢	
KIAA0136	2	D50926						<u> </u>	
KIAA0137 (KIAA0137)	1	AB004885		+	+	+	-	+	
KIAA0140 (KIAA0140)	1 -	D50930	+	+		+	<del> </del>	+	
KIAA0141 (KIAA0141)	3	D50931		-		1	<del> </del>		
KIAA0144 (KIAA0144)	3	D63478	+	+	+	+	<del></del>	+	<u> </u>
KIAA0144 (KIAA0144) (low	1	D63478	<del></del>	<del> </del>	<del> </del>	$\vdash$	$\vdash$		
match)	· ·		·						<u> </u>
KIAA0144 (non-exact 61%)	I	Q14157							
KIAA0144 (non-exact 65%)	1	Q14157							
KIAA0146	2	D63480		+	+	+		+	
KIAA0148 (KIAA0148)	. 1	D63482		+				+	
KIAA0154	2	D63876	+	+	+	+		+	
KIAA0156	1	D63879		+	+	+		+	
KIAA0160	2	D63881		1.				1	
KIAA0161 (KIAA0161)	1	D79983	+	+		+			
KIAA0164 (KIAA0164)	3	D <b>79986</b>		<del>                                     </del>	<u> </u>			<u> </u>	
KIAA0167 (KIAA0167)	1 1	D79989		+	<del>                                     </del>	1	<del>                                     </del>	<del>                                     </del>	-
KIAA0168 (KIAA0168)	3	D79990	<del></del>	+	+	+	<del>                                     </del>	+	
KIAA0169	3	D79991		$\vdash$		<del>                                     </del>	$\vdash$	-	
KIAA0171 (KIAA0171)	3	D79993		++	+	+	<del>                                     </del>	+	
KIAA0174 (KIAA0174)	1 7	D79996	+	+	+	+-	┢	+	
KIAA0179	2	D80001		+	+	+	-	+	
KIAA0181	1	D80003		+	+	+	-	+	
KIAA0183	4	D80005	+	+-	+	+	+	+	
KIAA0184	1 -1	D80006	+	+	+	+	-	+	
KIAA0191 (72% aa)	1	D83776		$+\dot{-}$	<del>                                     </del>	+	$\vdash$	+	· · · · · · · · · · · · · · · · · · ·
KIAA0191 (non-exact 77%)	1			+-	<del> </del>	+-	├-	┼-	
KIAA0193 (KIAA0193)	+ +	D83777	+	++	+	+	├	+	
KIAA0200 (KIAA0200)	<del> ;</del>	D83785		++	+	╁	<u> </u>	+	<u> </u>
	1	D85765		<del>                                     </del>	+	╀	₽-	+	
KIAA0210 (KIAA0210)	3			+	+	+		+	
KIAA0217	2	D86971	+		·L		ļ	+	
KIAA0219	2	U77700	<u> </u>	+	+	+	<u> </u>	<b>↓</b>	
KIAA0222 (KIAA0222)	1	D86975		<u> </u>	Ь	↓_	$\vdash$	↓_	
KIAA0223	2	D86976			<u> </u>	$oldsymbol{ol}}}}}}}}}}}}}}}}}$	_	$oldsymbol{ol}}}}}}}}}}}}}}}}}$	
		i Docoos	+	+	1	1	1	1 _	l.
	1	D86982	<u> </u>						<u> </u>
KIAA0232 (KIAA0232)	1	D86985	· ·	+	+	+		+	
KIAA0229 KIAA0232 (KIAA0232) KIAA0233 (KIAA0233)	1	1	<u>'</u>	+	+	+		+	
KIAA0232 (KIAA0232)	1	D86985	+	+	+	+		+	

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KIAA0239 (non-exact 80%)	1	D87076							
KIAA0240	1	D87077							
KIAA0242	4	D87684	, +	+	+	+	+	+	·
KIAA0248	2	D87435		+	. +	+		+	
KIAA0249 (KIAA0249)	3	D87436	+	.+	+	+		+	
KIAA0253	5	D87442	+	+	+	+	+	+	
KIAA0254 (KIAA0254)	1	D87443		+	+	+		<b></b>	
KIAA0255(KIAA0255)	4	D87444		+	+	+		+	
KIAA0262 (KIAA0262)	3	D87451	+	+.	+	+		+	
KIAA0263 (KIAA0263)	· 1	D87452	+	+	+	+		+	
KIAA0264	3	D87453		+	+	+		+	
KIAA0268	1	D87742	+	+		+		+	
KIAA0269	1	Q92558		<del> </del>					
KIAA0275 (KIAA0275)	13	D87465	-+	+		+		+	
KIAA0304 (KIAA0304)	2	AB002302	+	+	+	+	+	+	
KIAA0308	2	AB002306		+	+			+	
KIAA0310 (KIAA0310)		AB002308		+	+	+		+	
KIAA0314 (=U96635	3	AB002312	<del> </del>			-		<del>                                     </del>	,
M.musculus ubiquitin	:					1	l		
protein ligase Nedd-4) KIAA0315 (KIAA0315)	4	AB002313		+	+	+	+	+	
KIAA0315 (KIAA0315) KIAA0325 (=L08505	2	AB002313		<u> </u>			<u> </u>	<u> </u>	
R.norvegicus cytoplasmic		AB002323						1	٠.
dynein heavy chain (MAP		1.			<b>!</b> .	Ì			,
1C)) KIAA0329 (KIAA0329)	<del>-</del>	AB002327	•	+-	+	+-	<u> </u>	+	
KIAA0330		AB002327	+	+	+		<u> </u>	+	
KIAA0332	1	AB002328		<del> </del>	+	+	<u> </u>	1	
	2	AB002330 AB002331		+	+	+	+	+	
KIAA0333		AB002331	+	+	+	+		+	ļ
KIAA0336 (KIAA0336)	3	AB002334 AB002334	<del></del>	<u> </u>	+	<u> </u>	<u> </u>	<b>↓</b> ▼	
KIAA0336 (KIAA0336) (low match)	1	AB002334						1	
KIAA0342 (KIAA0342)	1	AB002340		+	+		┢	+	
KIAA0344 (KIAA0344)	2	AB002342		<del> </del>	· · · ·	+	-	+	
KIAA0354 (KIAA0354)	1	AB002352	+	+	+	+		+	
KIAA0365 (KIAA0365)	3	AB002363	+	+	+	+	+	+	· · · · · · · · · · · · · · · · · · ·
KIAA0370	6	AB002368		+	+	+	+	+	
KIAA0372 (KIAA0372)		AB002370		╁	<del></del>	<del>                                     </del>			
KIAA0373 (KIAA0373)	1	AB002371	<del></del>	+	<del>                                     </del>	+	<del>                                     </del>	┼	
KIAA0375 (KIAA0375)	1	AB002373		+		+	╁		
KIAA0377 (KIAA0377)	1	AB002375		+		+	+	<del>                                     </del>	
KIAA0379	1	AB002377	· · · · · · · · · · · · · · · · · · ·	+		+		├	
KIAA0379 (non-exact,	1	AB002377	<del> </del>	┼─		$\vdash$	_	$\vdash$	
65%)		1		<u> </u>		<u> </u>			
KIAÁ0380 (KIAA0380)	1	AB002378	+	+		+		+	
KIAA0380 (KIAA0380)	1	AB002378		1					
(60%aa) KIAA0382 (KIAA0382)	2	AB002380		+	+	+		+	
KIAA0383	1	AB002381		-	-	-	├	┼	
KIAA0386 (KIAA0386)	5	AB002384		1	<del>                                     </del>	$\vdash$	-	-	ļ
KIAA0392	1	AB002384 AB002390		┼—		<del>[</del>	-	-	<del> </del>
KIAA0397 (KIAA0397)	4	AB007857		+	+	+	+	+	
-				┵	Ļ	Ļ	<u> </u>	T	<u> </u>
KIAA0403	3	AB007863		<del> </del>		Ļ			<u></u>
KIAA0404		AB007864		+	ļ	<u> </u>		_	
KIAA0409	1	AB007869		+	<u> </u>	<u> </u>		<u> </u>	·
KIAA0421	1	AB007881	+	+	+			+	
KIAA0424 (non-exact 82%)	1	AB007884		$\bot$		L		L_	<u> </u>

KIAA0428 (KIAA0428)	9	Y13829	*****		-				
KIAA0429 (KIAA0429)	2	AB007889	+	+	+	+		+	
(IAA0430 (KIAA0430)	2	AB007890		1. 1					only in ovary
(IAA0432 (KIAA0432)	2	U86753	T	+	+				
KIAA0435 (KIAA0435)	1	AB007895							
KIAA0438 (KIAA0438)	<del>-                                    </del>	AB007898		+	+	+		+	
(IAA0447 (KIAA0447)	3	AB007916	+	+	+	+	$\overline{}$	+	
KIAA0449	- 1	AB007918		+		-		+	
KIAA0456	1	AB007925		+	+	+		+	
KIAA0458 (KIAA0458)	1	AB007927				· ·			
KIAA0462	1	AB007931	+	+ -	+	+		+	
KIAAN465	1	AB007934	<del></del> .	+	+	+	.+	+	
KIAA0476 (KIAA0476)	1	AB007945		1+1	+	+			
KIAA0489	1	AB007958						┝	
KIAA0494 (KIAA0494)	1	AB007963	+	+	+	+		+	
KIAA0515	<u> </u>	AB011087	+	+	+	+	,	+	
KIAA0521	3	AB011093	+	++				+	
KIAA0525	1	AB011097	•	+		+	<del>-</del>	<u> </u>	
KIAAU525 KIAA0530		AB011097	· · · · ·	+	+	+		-	
KIAA0530 KIAA0532	1.	AB011102 AB011104	+	+	+	+		+	<u> </u>
	1 1	AB011109		<u> </u>				ļ.	
KIAA0537 (KIAA0537)	Į	AB011109 AB011112	. +	+	+	+		+	
KIAA0540	1	AB011112 AB011115	. •	-	+	+		+	
KIAA0543	1			<u> </u>	+	+		+	<u> </u>
KIAA0544	1	AB011116	:	+				<u> </u>	
KIAA0549	2	AB011121	····	+	+	+		+	
KIAA0551	2	AB011123		+				+	
KIAA0554	8	AB011126		+	+	+	L_	+	
KIAA0561	1	AB011133		+	<u> </u>	+			
KIAA0562 (KIAA0562)	1	AB011134				<u> </u>		L.	
KIAA0563 (KIAA0563)	1	AB011135		<u> </u>					·
KIAA0569 (KIAA0569)	2	AB011141		+	+	+		+	
KIAA0571 (KIAA0571)	2	AB011143		+	+	+			<u> </u>
KIAA0573 .	- 1	AB011145		+		+		+	
KIAA0576	1	AB011148							[ <u></u>
KIAA0580	1	AB011152							
KIAA0584	1	AB011156		+			Π	$\Box$	
KIAA0592	- 3	AB011164	+	+	+	+		+	
KIAA0596	1	AB011168		+	+				
KIAA0598 (KIAA0598)	1	AB011170		+	+	+			
KIAA0608	1	AB011180			. +	+			
KIAA0614	2	AB014514	+	+	+	+	i T	+	
KIAA0615 (KIAA0615)	1	AB014515		1					
KIAA0621	1 1	AB014521		+	+	T	$\vdash$	+	
KIAA0648	1	AB014548		+	+	+	1	+	<del> </del>
KIAA0652 (KIAA0652)	1-1-	AB014552	+.	+.	+	+	$\vdash$	+	†·
KIAA0668	<del>                                     </del>	AB014568	•	+	<del>                                     </del>	t	1	T	
KIAA0669	<del>                                     </del>	AB014569		+-	$\vdash$	1	$\vdash$	†	
KIAA0671 (KIAA0671)	1	AB014571	· · · · · · · · · · · · · · · · · · ·	+	+	+	<del>                                     </del>	+	
KIAA0675 (KIAA0675)	1	AB014575	· · · · · · · · · · · · · · · · · · ·	+	+-	+	+	+	<del> </del>
KIAA0676	1 -1	AB014576		++	+	+	÷	╁	<del> </del>
KIAA0677 (KIAA0677)	2	AB014577		+	+	+	+	╁	-
KIAA0678	1	AB014578	+	+	+	+	Ė	+	<del> </del>

WO 00/40/49		•							C17CA00/00003
(IAA0680 (KIAA0680)	1	AB014580							
KIAA0692	1	AB014592	+	+	+	+		+	
(IAA0697	1	AB014597				П			
KIAA0699	1 .	AB014599	+	+	+	+		+	
KIAA0700	1	AB014600		+	+	+		+	
(IAA0737 (KIAA0737)	3	AF014837	+	++	+	+		+	
(IAA0748 (KIAA0748)	2	AB018291		++		Н			
KIAA0763 (KIAA0763)	2	AB018306	+	1. +	+	+		+	
KIAA0769 (KIAA0769)		AB018312		++	+	+		+	
KIAA0782	<del>-</del>	AB018325	+	╂┯┥		+			high in BPH stroma
(IAA0796	<del></del>	AB018339		+-	+	+		+	
KIAA0798 (KIAA0798)	<del></del>	AB018341		+ -		-			
KIAA0823	<del>- </del>	AB020630	<u> </u>	+		$\vdash$		<u> </u>	
KIAA0854	<del></del>	AB020661	+	+	+	+	•	+	
		AB020663		++	+	+		+	
KIAA0856	1							_	
KIAA0860	1	AB020667		+		+		L	· · · ·
KIAA0862	1.	AF054828		+	+	+		<u> </u>	
KIAA0871 (non-exact 88%)	1.	AB020678						·	
KIAA0873	1	AB020680		+	+	+		+	
KIAA0892	1	AB020699	+	+	+	+		+	
KIAA0906	1	AB020713	• +	+	+	+		+	
KIAA0991	1	AB023208.1							·
killer cell lectin-like	1	U11276			+	+		+	
receptor subfamily B, member 1 (KLRB1)							ŀ		
killer cell lectin-like	1	U96846		+	<b></b> -	<del> </del>		<del> </del>	
receptor subfamily C, member 4 (KLRC4)							·		· .
kinectin 1 (kinesin receptor) (KTN1)	1	D13629	•						
kinesin family member 5B (KIF5B)	2	X65873	•	+	+	+	<u> </u>		
kinesin-like DNA binding protein	1	AB017430	+	+	+	+		+	
Krueppel-related DNA- binding protein (TF6) (low match)	1	M61869							
Kruppel related gene (clone pHKR1RS)	1	M20675							
Kruppel-like zinc finger protein Zf9	3	U51869	+	+	+	+	+	+	
Kruppel-like zinc finger protein Zf9 (non-exact 76%)	1	U44975		+	+		+	*	
kruppel-type zinc finger protein, ZK1	1	AB011414.1		<del>                                     </del>					
L apoferritin	3	X03742			<b>—</b>	1	T-		
actate dehydrogenase A (LDHA)	3	X02152		+	+	+	+	+	
lactate dehydrogenase A (LDHA) (non-exact, 81%)	1	X02152							
actate dehydrogenase B (LDHB)	6	X13794	+	. +	+	+	+	+	high in fetal lung fibrablast
lactotransferrin (LTF)	1	U07643	+			+		+	high in bone marrow
laminin binding protein (low score)	T	D28372							·
	20	X15005	+	+	+	+	+	+	high in many librarie
laminin receptor 1 (67kD); Ribosomal protein SA (LAMR1)							1	1	
	<del>1</del>	S35960		-	-	-	-		

WO 00/40749		•							L1/CA00/00005
latent transforming growth factor beta binding protein 1 (LTBP1)	2	M34057		: <b>+</b> ;	+	+		+.	
LAZ3/BCL6 (=Z79582;D28522/4)	1	Z79581							
LDLC	2	Z34975	+	+	+	+		+	
lecithin-cholesterol acyltransferase (LCAT) (non-exact, 66%)	1	M17959							
lectin, galactoside-binding, soluble, 2 (galectin 2) (LGALS2)	1	M87842		:		+			
lectin, galactoside-binding, soluble, 3 binding protein (galectin 6 binding protein) (LGALS3BP)		L13210	+	+	+	+		+	
leucine rich repeat (in FLII) interacting protein 1 (LRRFIP1)	5	AJ223075	+	+	+	+	+	+	
leucocyte immunoglobulin- like receptor-5 (LIR-5)	2	AF072099				+			
leucocyte immunoglobulin- like receptor-6a (LIR-6)	7	AF025530	_		·				
leucocyte immunoglobulin- like receptor-7 (LIR-7)	2	U82275		+,	<u> </u>				only found in CNS
leukemia virus receptor 1 (GLVR1)	1	L20859	+	+	+	+		+	
leukocyte adhesion protein p150,95 alpha subunit	1	M29484			ļ	ļ			
leukocyte antigen, HLA-A2	3	Y13267							
leukocyte immunoglobulin- like receptor (MIR-10)	3	AF025528		+			<u>:</u>		
leukocyte tyrosine kinase (LTK)	1	X60702	+						found only in blood
leukocyte-associated lg- like receptor 1 (LIAR1)	3	AF013249	·			+			
leukotriene A4 hydrolase (LTA4H)	6	J03459	+	+	<u> </u>	+	_	+	·
leupaxin (LDPL)	2	AF062075	+	<u> </u>	ļ	+		+	<u> </u>
ligase I, DNA, ATP- dependent (LIG1)	1	M36067	В, Т	+	+		+	+	
LIM and SH3 protein 1 · (LASP1)	2	X82456	+	+	+	+	+	+	
LIM domain kinase 2 (LIMK2)	2	AC002073	+	+	+			+	
line-1 protein	1							<u> </u>	
Line-1 repeat mRNA with 2 open reading frames	1	U93566	+	+	+	Ľ	+	+	
Line-1 repeat with 2 open reading frames	1	M22332	+	+	+	+	+	+	high in gastric tumor
LINE-1 REVERSE TRANSCRIPTASE HOMOLOG	1 .	P08547	· · ·						
lipase A, lysosomal acid, cholesterol esterase (Wolman disease) (LIPA)	4	X76488	+	+	+	+		+	
lipase, hormone-sensitive (LIPE)	1	L11706	+	+				+	
LMP7	1	L11045						L	
Lon protease-like protein (LONP)	2	X74215	+	+	+	+		+	
low density lipoprotein- related protein 1 (alpha-2- macroglobulin receptor) (LRP1)	2	AF058414	,				†		only in liver
low density lipoprotein- related protein-associated protein 1 (alpha-2- macroglobulin receptor- associated protein 1) (LRPAP1)		M63959		+	+		+	+	

WO 00/40749			•						21/CA00/00003
low density lipoprotein-	1	M639 <b>59</b>							
related protein-associated	•			·	-				
protein 1 (alpha-2-									•
macroglobulin receptor-				1			. 1		•
associated protein 1) (LRPAP1) (non-exact,									
(LRPAP I) (non-exact, 75%)			٠,	i					
low-affinity Fc-gamma	1	L08107	<u> </u>	<del> </del>					
receptor IIA		200107							
LPS-induced TNF-alpha	9	AF010312	+	+	+	+	+	+	
factor (PIG7)		/ 11 0 1 00 12							
Lst-1	1	U00921	+	+	+	+		+	
L-type amino acid	1	AF104032						<u> </u>	
transporter subunit LAT1	· '	AF 104032		1	ŀ				
lung resistance-related		X79882	+	+	+	+		+	
protein (LRP)		7,300E	· ·	'		1		'	
Lymphocyte antigen 75	- 1	AF011333	В	<del>                                     </del>					
(LY75)	•		. •			١.		·	
lymphocyte antigen 9 (LY9)	2	L42621		<del> </del>	<del></del>		_	1	
	2	L42345		1	<u> </u>	-			
lymphocyte antigen HLA- B*4402 and HLA-B*5101	4	L42345	İ	1	l '		7	<b>'</b>	
lymphocyte cytosolic	42	J02923	<del> </del>	1-	<del> </del>		├		· · · · · · · · · · · · · · · · · · ·
protein 1 (L-plastin) (LCP1)	75			1	l			1	•
lymphocyte cytosolic	.4 .	U20158		<u></u>	lymp	hom	a. T	activ	vated
protein 2 (SH2 domain-		1			.,		-, ·		·
containing leukocyte			Ī		•				
protein of 76kD) (LCP2)									·
lymphocyte glycoprotein	2	X04391	+	ĺ	+				
T1/Leu-1				1					
lymphocyte-specific protein	16	M33552	+	+	+	+		+	
1 (LSP1)			·	<u> </u>				[	
lymphocyte-specific protein	7	M36881		+	٠.			+	
tyrosine kinase (LCK)			<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	
lymphoid phosphatase	1	AF001847	•			١.	l	1	,
LyP1	ļ	1145485	<u> </u>	<del> </del>	<u> </u>	L		<u> </u>	· · · · · · · · · · · · · · · · · · ·
lymphoid-restricted	4	U10485	+,		+	+	l	l	i .
membrane protein (LRMP) lymphoid-specific SP100	1	U36500		├	<b> </b> -	<b>├</b> ─	<b> </b> -	+	<u> </u>
homolog (LYSP100-A)	<b>,</b> '	030300		1		1		T	
lymphoma proprotein	2	U33849	<del></del>	+ +	+	+	┝	+	
convertase (LPC)	_	00000	1	1 '		'	1	Ι'	
LYSOSOMAL	1	P10619	· · · · · · · · · · · · · · · · · · ·	+		┿	Η÷	<del> </del>	<del></del>
PROTECTIVE PROTEIN	١. '	1			l	1	1	1	
PRECURSOR				1		l		1	
(CATHEPSIN A)				1.	l		l		
(CARBOXYPEPTIDASE C)				1	1	ļ			
lysosomal-associated	1	J04182	+	+	+	+	+	+	
membrane protein 1					1		Ì	ł	
(LAMP1)	L	<u></u>		ــــــ	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
Lysosomal-associated	1	J04183		+	+	+	+	+	<i>:</i>
membrane protein 2	· ·				l	1 .		1	
(LAMP2)	20	. M4004E		-		<del> </del> -		-	
lysozyme (renal	39	M19045	+	+	+	+	1	+	
amyloidosis) (LYZ)	2	D32053	+	+-	+	+	<del> </del>	+	<del> </del>
lysyl-tRNA synthetase (KARS)	1 4	032033	<b>,</b> •	•	•	*		•	
M phase phosphoprotein	1	X98494	<del> </del>	+	-	<del> </del>			
110 (U3 small nucleolar	'	7,00,00	1	1	t	1	1		
ribonucleoprotein) (MPP-	l	1 .	I	1		ļ		l	[ · ' '
10)	l	1 .	,	1	1	1	İ	1	
M1-type and M2-type	2	X56494	<u> </u>	1		T -	$\vdash$	T	
pyruvate kinase	l -	1	i	1	1	1		l	ļ · .
m6A methyltransferase	7	AF014837	+	+	$\vdash$	+		$\vdash$	
(MT-A70)	l <sup>*</sup>			1				l .	<u> </u>
mab-21 (C. elegans)-like 1	1	U38810		+	+	+		+	
(MAB21L1)		L	<u> </u>		L	L	L		
MacMarcks	1	X70326	+	+	+	+	+	+	
macrophage-associated	1	Z22968	<del>                                     </del>	+	+	+	<del>                                     </del>	+	
antigen (MM130)	l '		1	1	1		]	İ	1
3		·	·		<del>-</del>		<u> </u>		·

WO 00/40/49			•					1	.1/CA00/00003
MADS box transcription enhancer factor 2,	1	U49020		+	+	+		+	
polypeptide A (myocyte enhancer factor 2A) (MEF2A)	•								
MADS box transcription enhancer factor 2,	1	L08895		+	+	+		+	
polypeptide C (myocyte enhancer factor 2C) (MEF2C)									
major cytoplasmic tRNA- Val(IAC) (=M33940)	1	X17516							
major histocompatibility complex class I beta chain (HLA-B)	1	M95531					-		·
complex, class I, A (HLA-A)	41	₹23949	· · · · · · · · · · · · · · · · · · ·	.+	+	+ ,		+	high in villous adenoma
major histocompatibility complex, class I, A (HLA-A) (low match)	1	Z72422							
major histocompatibility complex, class I, C (HAL-C)	82	M24097	+	+	+	+	+	+	
major histocompatibility complex, class I, E (HLA-E)	.77	M20022	+	+	+	+		+	
major histocompatibility complex, class II, DM BETA (HLA-DMB)	2	U15085	+	+	+	+		+	
major histocompatibility complex, class II, DP beta 1 (HLA-DPB1)	10	M57466	+	+	+	+		.+	
major histocompatibility complex, class II, DR beta 1 (HLA-DRB1)	9	√00522	+	+	+	+		+	
Major histocompatibility complex, class II, Y box- binding protein I; DNA- binding protein B (YB1)	2	M24070	٠.	+	+		+	+	
malate dehydrogenase 1, NAD (soluble) (mdh1)	1	D55654	+ -	+	+	+	+	+	
malate dehydrogenase 1, NAD (soluble) (MDH1)	3	D55654		+	+		+	+	
malonyl-CoA decarboxylase precursor	2	AF097832							
maltase-glucoamylase (mg)	4	AF016833				+			
manic fringe (Drosophila) homolog (MFNG)	1	U94352	+	+	+	+		_	
mannose phosphate isomerase (MPI)	1	X76057		+	+	+		+	
mannose phosphate isomerase (mpi)	2	X76057	, ,	+	+	+		+	
mannose-6-phosphate receptor (cation dependent) (M6PR)	<b>3</b>	X56253	. • •	+	+		+	+	
mannose-P-dolichol utilitzation defect 1 (MPDU1)	<b>1</b>	AF038961		+	+	+		+	
mannosidase, alpha B, lysosomal (MANB)	1	U60885		+		+	+	+	
mannosyl (alpha-1,3-)- glycoprotein beta-1,2-N- acetylglucosaminyltransfer ase (MGAT1)	1	M55621	+	+	+	+	+	+	
map 4q35 repeat region	1	AF064849			I				
MAP kinase-interacting serine/threonine kinase 1 (MKNK1)	2	AB000409		+	+	+	+	+	
MAP/ERK kinase kinase 3	5	U78876		+	<b>-</b>	1	$\vdash$		
(MEKK3)					1	1	ł	į	ŀ

MAP/microtubule affinity- regulating kinase 3   (MARK3)	. WO 00/40/49			•					. • •	.1/CA00/00003
Marenostrin protein	regulating kinase 3	4	M80359	•	+	+			+	
MAX dimerization protein (MAD) (MEIS3) (MAD) (MEIS3) (MAD)		1 .	Y14441							
(MAD)	MASL1	1	AB016816							
Maxik polassium channel betel subunit   MBP2 for MHC binding   1		3	L06895	,		-			+	
MBP2 for MHC binding   Total	MaxiK potassium channel	1	AF035046			٠				
MEIS3	MBP-2 for MHC binding	. 1	X65644		+	+	+		+	
inelianoma-associated antigen p87 (melanotransferrin) (melanotransferrin) (membrane cofactor protein (CD46, trophoblast-tymphocyte cross-reactive antigen) (MCP) membrane component. (cD46, trophosome 17, surface marker 2 (ovarian endition of the component of the		1	U68385		+	+	+		+	
Temptrane cofactor protein (CD46, trophoblast   Tymphocyte cross-reactive antigen) (MCP)   Tymphocyte cross-reactive antigen) (MCP)   Tymphocyte cross-reactive antigen) (MCP)   Tymphocyte cross-reactive antigen) (MCP)   Tymphocyte cross-reactive antigen) (MCP)   Tymphocyte cross-reactive antigen (MCP)   Tymphocyte cross-reactive antigen (MCP)   Tymphocyte cross-reactive antigen (MCP)   Tymphocyte cross-reactive antigen (MCP)   Tymphocyte cross-reactive antigen (MCP)   Tymphocyte cross-reactive antigen (MCP)   Tymphocyte cross-reactive antigen (MCEA)   Tymphocyte cross-reactiv	antigen p97	1	M12154	, ;						
Thembrane component,   Chromosome 17, surface   Chromosome 17, surface   Chromosome 17, surface   Chromosome 17, surface   Chromosome 2   C	membrane cofactor protein (CD46, trophoblast- lymphocyte cross-reactive	4	X59405		+	+	+		+.	
carcinoma antigen CA125) (M17S2) membrane metallo- endopeptidase, (neutral endopeptidase, enkephalinase, CALLA, CD10) (MME) membrane protein, palmitoylated 1 (55kD) (MPP1) meningioma expressed antigen (MGEA) meningioma-expressed antigen (MGEA) meningioma-expressed antigen (MGEA) meningioma-expressed antigen (MGEA) meningioma-expressed p-type ATPase metaliolinionein ZA (MTZA) metaxin 1 (MTX1) metaxin 1 (MTX1) metaxin 1 (MTX1) methonine adenosyltransferase II, alpha (MATZA) methyl-CpG binding domain protein 1 (MBD1) (non-exact 59%aa) methylene tetrahydrofolate cyclohydrolase (MTHFD2) methylenetetrahydrofolate cyclohydrolase (MTHFD2) methyltenetetrahydrofolate cyclohydrolase (MTHFD2) methylteransferase (MTHFD2) methylteransferase (MTHFD2) methylteransferase (MTHFD2) methylteransferase (MTHFD2) methylteransferase (MTHFD2) methylteransferase (MTHFD2) methylteransferase (MTHFD2) methylteransferase (MTHFD2) methylteransferase (MTHFD2) methylteransferase, pulative MHC antigen (HLA-B)  1 U14943	membrane component, chromosome 17, surface	4	D14696		+	+,	+	+	+	
membrane metallo- endopeptidase (neutral endopeptidase, enkephalinase, CALLA, CD10) (MME) membrane protein, palmitoylated 1 (55kD) (MPP1) meningioma expressed antigen (MGEA) meningioma expressed antigen (MGEA) meningioma-expressed antigen 11 (MEA11) Menkes Disease (ATP7A) putative Cu++-transporting P-type ATPase metallothionein 2A (MT2A) metallothionien 2A (MT2A) methonine adenosyltransferase II, alpha (MAT2A) methyl-CpG binding domain protein 1 (MBD1) (non-exact 59%aa) methyl-CpG binding domain protein 1 (MBD1) (non-exact 59%aa) methyl-cpG etar-dyrofolate dehydrogenase (NADP+ dependent), metheryltetrahydrofolate cyclohydrolase (MTHFD1) methyletetrahydrofolate cyclohydrolase, (MADP+ dependent), metheryltetrahydrofolate synthetase (MTHFD1) methyltransferase, putative  AJ224442 MHC antigen (HLA-B)  1 U14943	carcinoma antigen CA125)			• .						
CD10 (MME)	membrane metallo- endopeptidase (neutral endopeptidase,	2	J03779	В		+.	+	+	+	
palmitoylated 1 (55kD) (MPP1) meningioma expressed antigen (MGEA) meningioma-expressed antigen 11 (MEA11) Menkes Disease (A1P7A) putative Cu++-transporting P-type ATPase metallothionein 2A (MT2A) methionine adenosyltransferase II, alpha (MAT2A) methyl-CpG binding domain protein 1 (MBD1) (non-exact 59%aa) methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate dehydrogenase (NADP+ dependent), methenyltetrahydrofolate dehydrogenase (NADP+ dependent), methenyltetrahydrofolate synthetase (MTHFD1) methylenetetrahydrofolate synthetase (MTHFD1) methylenetetrahydrofolate synthetase (MTHFD1) methylenetetrahydrofolate synthetase (MTHFD1) methylenetetrahydrofolate synthetase (MTHFD1) methyltransferase, putative  Z AJ224442  MHC antigen (HLA-B)  1 U14943	CD10) (MME)		NG 400E							
antigen (MGEA) meningioma-expressed antigen 11 (MEA11) Menkes Disease (ATP7A) putative Cu++-transporting P-type ATPase metallothionein 2A (MT2A) metaxin 1 (MTX1)  methionine adenosyltransferase II, alpha (MAT2A) methyl-CpG binding domain protein 1 (MBD1) (non-exact 59%aa) methylene tetrahydrofolate dehydrogenase (NAD+ dependentt), methenyltetrahydrofolate cyclohydrolase, (NADP+ dependentt), methenyltetrahydrofolate cyclohydrolase, (NADP+ dependentt), methenyltetrahydrofolate synthetase (MTHFD1) methyltransferase, putative  Z AJ224442  MHC antigen (HLA-B)  1 U73682 + + + + + + + + + + + + + + + + + + +	palmitoylated 1 (55kD) (MPP1)					+		•	•	
antigen 11 (MEA11)  Menkes Disease (ATP7A) putative Cu++-transporting P-type ATPase metallothionein 2A (MT2A)  metaxin 1 (MTX1)  methionine  2 X68836  + + + + +  denosyltransferase II, alpha (MAT2A)  methyl-CpG binding domain protein 1 (MBD1) (non-exact 59%aa)  methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate cyclohydrolase, (MTHFD2) methyleneletrahydrofolate dehydrogenase (NADP+ dependent), methenyltetrahydrofolate cyclohydrolase, formyltetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthetase (MTHFD1) methyltransferase, putative  2 AJ224442  MHC antigen (HLA-B)  1 U14943	antigen (MGEA)									
putative Cu++transporting P-type ATPase  metallothionein 2A (MT2A) 1 V00594 + + + + + + + + + + + + + + + + + + +	antigen 11 (MEA11)			+			+	+		
metaxin 1 (MTX1)	putative Cu++-transporting P-type ATPase	<b>1</b>		٠.	+					
methionine adenosyltransferase II, alpha (MAT2A) methyl-CpG binding 1 Y10746 domain protein 1 (MBD1) (non-exact 59%aa) methylene tetrahydrofolate 2 X16396 + + + + + + + + + + + + + + + + + + +	metallothionein 2A (MT2A)	1	V00594		+	+	+	+	+	
adenosyltransferase II, alpha (MAT2A) methyl-CpG binding 1 Y10748 domain protein 1 (MBD1) (non-exact 59%aa) methylene tetrahydrofolate 2 X16396 + + + + + + + + + + + + + + + + + + +	metaxin 1 (MTX1)	1	U46920	·	+		+		+	
methyl-CpG binding domain protein 1 (MBD1) (non-exact 59%aa) methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate cyclohydrolase (MTHFD2) methylenetetrahydrofolate dehydrogenase (NADP+ dependent), methenyltetrahydrofolate synthetase (MTHFD1) methyltetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthetase (MTHFD1) methyltransferase, putative 2 AJ224442 MHC antigen (HLA-B) 1 U14943	adenosyltransferase II,	2	X68836	+	+	+	+	•	+	
methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate cyclohydrolase (MTHFD2) methylenetetrahydrofolate dehydrogenase (NADP+ dependent), methenyltetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthetase (MTHFD1) methyltransferase, putative 2 AJ224442 MHC antigen (HLA-B) 1 U14943	methyl-CpG binding domain protein 1 (MBD1)	1	Y10746							
methenyltetrahydrofolate cyclohydrolase (MTHFD2) methylenetetrahydrofolate dehydrogenase (NADP+ dependent), methenyltetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthetase (MTHFD1) methyltransferase, putative  MHC antigen (HLA-B)  1 J04031 + + + + + + + + + + + + + + + + + + +	methylene tetrahydrofolate dehydrogenase (NAD+	2	X16396	+	.+	+	+		*	
dehydrogenase (NADP+ dependent), methenyltetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthetase (MTHFD1) methyltransferase, putative 2 AJ224442 MHC antigen (HLA-B) 1 U14943	methenyltetrahydrofolate cyclohydrolase (MTHFD2)				ļ					
formyltetrahydrofolate synthetase (MTHFD1) methyltransferase, putative 2 AJ224442 MHC antigen (HLA-B) 1 U14943	dehydrogenase (NADP+ dependent), methenyltetrahydrofolate	. 1	J04031		+		+	+	*	
methyltransferase, putative 2 AJ224442 MHC antigen (HLA-B) 1 U14943	formyltetrahydrofolate		*.			•				
MHC antigen (HLA-B) 1 U14943	methyltransterase, putative	2								
	(=L42024)									
MHC class 1 region 2 AF055066	) "	2	AF055066							
MHC class I antigen (HLA- 1 U70863 A2)	A2)	- 1	U70863							
MHC class I antigen (HLA- 1 U19736 A33)	MHC class I antigen (HLA- A33)	1	U19736							·
MHC class I antigen (HLA- 1 U38975 C)	MHC class I antigen (HLA-	1	U38975							

•								
1	U52813			ĺ			<u> </u>	
2	AF015930						<del>                                     </del>	
1.	U36687			<u> </u>		_	<u> </u>	
2	X13112			-			-	
1	U67331						_	
	1167220				· .		·	
•						·		
	<u> </u>				١.			
1	AF035648							
1	U52175							
1	D83030		•					
1	U56434							
1	U58469							
1	U06697							
2	L07950				<u> </u>	<u> </u>		
1	Flp							·
1	U18660					$\vdash$		
1	U18661							
<u>,                                      </u>								
1								
1	-							
2	Z33459							
_								
	_					,		
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1								
1	L18885							
	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028596 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 FIp 1 U18660 1 U18661 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U56139 1 M19670 1 X91625 1 L14848 1 U61274	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028596 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 Fip 1 U18660 1 U18661 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U56139 1 M19670 1 X91625 1 L14848 1 U61274	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028596 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 FIp 1 U18660 1 U18661 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U58639 1 M19670 1 X91625 1 L14848 1 U61274	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028596 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 Fip 1 U18660 1 U18661 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U56139 1 M19670 1 X91625 1 K91625 1 L791625 1 M19670	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028596 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 Fip 1 U18660 1 U18681 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U56139 1 M19670 1 X91625 1 L14848 1 U61274	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028596 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58469 1 U06697 2 L07950 1 Fip 1 U18660 1 U18661 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 U5625 1 M19670 1 X91625 1 L14848 1 U61274	2 AF015930 1 U36687 2 X13112 1 U67331 1 U67330 1 AF017328 1 AF014770 1 U58643 1 AF028596 1 AF035648 1 U52175 1 D83030 1 U56434 1 U58459 1 U06697 2 L07950 1 FIP 1 U18660 1 U18661 1 U28759 1 L76094 3 U17572 1 M24038 1 L41086 2 Z33459 1 D64150 3 Z15144 1 M28206 1 L56139 1 M19670 1 X91625 1 L14848 1 U61274

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MHC class II DQ-alpha associated with DRw6, DQw1 protein	1	M16995	+		+	+		+	
MHC class II DQ-beta associated with DR2,	2	M17564		+		+	-	+	
DQw1 protein MHC class II HAL-DQ- LTR5 (DQ,w8) DNA	1.	M33842							
fragment, long terminal repeat region						_			
MHC class II hla-dr alpha- chain (=J00197;M60334;K01117	1	J00195				-	- <del>-</del>		
1:J00194;M60333;X00274) MHC class II HLA-DRB1	1	AF007883							
				<del> </del>		<u> </u>		ļ	
MHC class II HLA-DRw11- beta-I chain (DRw11.3)	. 1	M21966							
MHC class II lymphocyte antigen (DPw4-beta-1)	1	M23907							
MHC CLASS II TRANSACTIVATOR CIITA (non-exact 57%)	1	P33076	-				÷		
MHC HLA-E2.1 (=X87679)	1	M32507			,				
MHC HLA-E2.1 (alpha-2 domain) (low match)	·1 ·	M32507							
Mi-2 autoantigen 240 kDa protein (non-exact 84%)	1	U08379			·				
microsomal stress 70 protein ATPase core (stch)	. 1	U04735							·
microtubule-associated protein 4 (MAP4)	1	U19727	+	+	+	+		+	
microtubule-associated protein 7 (MAP7)	. 1	X73882			•				
mineralocorticoid receptor (aldosterone receptor) (MLR)	2	M16801		+		+		+	
minichromosome maintenance deficient (S. cerevisiae) 3 (MCM31)	1	X62153		+	+	+		+	
minichromosome maintenance deficient (S. cerevisiae) 3-associated protein (MCM3AP)	. 1	AB011144		+	+	+		+	
minichromosome maintenance deficient (S. cerevisiae) 5 (cell division cycle 46) (MCM5)	2	X74795	+	+	+	+	+	+	
mitochondiral cytochrome b (CYTB)	7	AF042517							
mitochondrial 16S rRNA	11	270759						i i	
mitochondrial ATP synthase (F1-ATPase) alpha subunit	2	X59066							
mitochondrial ATP synthase c subunit (P1 form)	1	X69907							
mitochondrial cytochrome b (CYTB)	6	AF042508							
mitochondrial cytochrome b small subunit of complex II	1	AB006202							
mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE I	1	P00395							
mitochondrial CYTOCHROME C OXIDASE POLYPEPTIDE	1	P00403							-
mitochondrial cytochrome C oxidase subunit II	2	P00403							

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mitochondrial cytochrome oxidase subunit II (COII)	5	U12691						·	
(=U12692 Hsa4 mitochondrion cytochrome									
oxidase subunit II)									·
mitochondrial DNA loop attachment sequences (clone LAS34)	1	X89763							
mitochondrial DNA	1	U94703	· · · · · · · · · · · · · · · · · · ·	+		H			
polymerase accessory subunit precursor (MtPoIB)	•	:		,			-		
nuclear gene encoding mitochondrial protein,			*						
mitochondrial DNA, complete genome	1	X93334							
mitochondrial genes for	8	∨00710							<del></del>
several (RNAs (Phe, Val, Leu) and 12S and 16S ribosomal RNAs.		,					) ·		1
mitochondrial genes for tRNA (Phe) and 12S rRNA (fragment)	3	V00660		•					
mitochondrial inner membrane preprotein	1	AF106622							
translocase Tim17a mitochondrial isolate Afr7	1	AF042503	<del></del>				-		
cytochrome b(CYTB) mitochondrial loop	1	X89843				<u> </u>			
attachment sequence (clone LAS88)		AF014893			ļ				
mitochondrial NADH dehydrogenase subunit 2 (ND2)	14								
mitochondrial translational initiation factor 2 (MTIF2)	1	L34600		+	+	+		+	
mitochondrion cytochrome b	1	U09500							
mitogen inducible gene mig-2	1	Z24725		+	+	+	_	+	
mitogen inducible gene mig-2 (non-exact, 71%)	1	Z24725							
mitogen-activated protein kinase-activated protein kinase 3 (MAPKAPK3)	<b>2</b>	U43784	•	+	+	+		+	
MLN51	2	X80199		+	+	+	+	+	
MLN64 (=D38255 CAB1)	1	X80198	+	+	+ .	+			
moesin (MSN)	14	M69066	+	+	+	+		+	
monocytic leukaemia zinc finger protein (MOZ)	2	U47742		+	+	+		+	
MOP1 ()	2	U29165	-						
motor protein (Hs.78504)	2	D21094	+	+	+	+		+	
mouse double minute 2, human homolog of; p53- binding protein (MDM2)	1	U39736			+	+			
M-phase phosphoprotein 6 (MPP-6)	1	X98263	<del></del>	+	+	+		+	
M-phase phosphoprotein,	1	X98260							
MPS1	1	L20314						Π	
Mr 110,000 antigen	2	D64154		+	1	+	+	+	
MRC OX-2, V-like region (=M17227)	1	X05324							
mu-adaptin-related protein- 2; mu subunit of AP-4 (MU- ARP2)	1	Y08387							
multifunctional polypeptide similar to SAICAR synthetase and AIR carboxylase (ADE2H1)		X53793		+	+	+		+	

								•	. •
murine leukemia viral (bmi- 1) oncogene homolog (BMI1)	1	L13689		+		+		+	
mutant (Daudi) beta2 - microglobulin	44	X07621				·			
mutated in colorectal cancers (MCC)	1	M62397		+	+	•		+	
myeloid cell leukemia sequence 1 (BCL2-related) (MCL1)	9	L08246	+	+	+	+ 2	+	-	
myeloid cell nuclear differentiation antigeN (MNDA)	11	M81750	+					+,	
myeloid differentiation primary response gene (88) (MYD88)	4	U70451		+	+ -	+		.*	
myeloid leukemia factor 2 (MLF2)	3	U57342		+	·	+		+	
myeloid/lymphoid or mixed- lineage leukemia (trithorax (Drosophila) homolog); translocated to, 7 (MLLT7)	8	U89867	·	+	+	+	2	+	
MYH9 (cellular myosin heavy chain)	1	M81105							
myomesin (M-protein) 2 (165kD) (MYOM2)	1	X69089							
myosin IÈ (MYO1É)	-11	X98411		+		+			
myosin light chain kinase (MLCK)	1	U48959	+		+	+		+	
myosin phosphatase, target subunit 1 (MYPT1)	2	D87930		+	+	+		+	
myosin regulatory light chain (=U26162)	2	D50372							
myosin VIIa (low match 71)	1	U55208							
myosin, heavy polypeptide 9, non-muscle (MYH9)	3	M81105	+	+	+	+		+	
myosin, light polypeptide, regulatory, non-sarcomeric (20kD) (MLCB)	6	X54304	+	+	+	+	+	+	
myosin-i beta	1	X98507	+	+	+	+		+	
myristoylated alanine-rich protein kinase C substrate (MARCKS, 80K-L) (MACS)	1	D10522		+	*				
myxovirus (influenza) resistance 1, homolog of murine (interferon-inducible protein p78) (MX1)	. 1	M30817	+	+	+	+		+	
myxovirus (influenza) resistance 2, homolog of murine (MX2)	3	M30818			+				
N-acetylgalactosaminidase, alpha- (NAGA)	2	M62783		+	+	1	+	+	
N-acetylglucosamine receptor 1 (thyroid) (NAGR1)	1	L03532		+	+	+		+	
NACP/alpha-synuclein	2	U46896		1					
N-acylaminoacyl-peptide hydrolase (APEH)	1	D38441		+	+		+	+	
N-acylsphingosine amidohydrolase (acid ceramidase) (ASAH)	11	U47674	+	+	+	+		+	
NAD+-specific isocitrate dehydrogenase beta subunit precursor (encoding mitochondrial protein)		U49283	+	+	+		+	+	
NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 5 (13kD, B13) (NDUFA5)		U53468.1	+	+	+	+	+	+	

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NADH dehydrogenase (ubiquinone) 1 beta	1	AF047181		+	+	. +	+	+.	
subcomplex, 5 (16kD, SGDH) (NDUFB5)			 						
NADH dehydrogenase (ubiquinone) Fe-S protein 2	1	AF050640		*	+	+	+	+	
(49kD) (NAĎH-coenzyme Q eductase) (NDUFS2) NAĎH dehydrogenase	1	M22538	į		+	_	+	+	
(ubiquinone) flavoprotein 2 (24kD) (NDUFV2)	•	;							
NADH:ubiquinone dehydrogenase 51 kDa	2	AF053070	. +	+	+	+	+.	+	
subunit (NDUFV1) NADH-CYTOCHROME B5		P00387				H	├	-	
REDUCTASE (B5R)	•				) .			•	
NADH-UBIQUINONE	1	P03886							
OXIDOREDUCTASE . CHAIN 1	2	U64898		+	+	+	_	+	
Nardilysin (N-arginine dibasic convertase) (NRD1)	2	00-050		Ţ					
nascent-polypeptide-	5	X80909		+	+		+	+	
associated complex alpha polypeptide (NACA)		260115				+		+	
natural killer cell group 7 sequence (NKG7) natural killer cell transcript	8 19	S69115 M32011	+			<sup>?</sup>	<u> </u>	<u> </u>	· ·
4 (NK4) Inatural killer-associated	1	U30274	+			-		·	blood only
transcript 3 (NKAT3)	1	AF022045	+	<u> </u>		_		_	blood only
transcript 5 (NKAT5) natural killer-tumor	1	L04288	В		+	-	+	+	
recognition sequence (NKTR)								L.	
N-deacetylase/N- sulfotransferase (heparan glucosaminyl) 2 (NDST2)	2	AF042084	+	+		+		+,	
Ndr protein kinase	3	Z35102		+					
Nedd-4-like ubiquitin- protein ligase WWP1	1	U96113							
nel (chicken)-like 2 (NELL2)	3	D83018		. +	+				
N-ethylmaleimide-sensitive factor attachment protein, alpha (NAPA)	1	U39412		+			+		
N-ethylmaleimide-sensitive factor attachment protein,	1	U78107		+	+	+			
gamma (NAPG) neural precursor cell	3	X92544	+ -	+	+	+		+	high in testis
expressed, developmentally down- regulated 5 (NEDD5)					<u>.                                    </u>				
neural precursor cell expressed,	1	D23662	+	+	+	+	+	+	
developmentally down- regulated 8 (NEDD8)	1 1	U02330		-		-	-	_	<u>.</u>
neuregulin 1 (NRG1)	i i	AB020692	<del>                                     </del>	+	+-	+	$\dot{\vdash}$	+	<del> </del>
neuroblastoma RAS viral (v-ras) oncogene homolog (NRAS)	4						ŀ		
Neuroblastoma RAS viral (v-ras) oncogene homolog	1	X68286							
(NRAS) (low match) Neurofibromin 2 (bilateral	1	S73853		+	+-	+	$\vdash$	+	
acoustic neuroma) (NF2) neuronal apoptosis inhibitory protein (NAIP)	2	U19251	┼─-	+	+	-	T	+	
neuronal cell adhesion molecule (NRCAM)	1	AB002341		+	+	+	T	+	
		<del></del>	<del></del>		4		_		

				<del></del>					
neuropathy target esterase (NTE)	1	AJ004832		+	+ .	+ .		*	
neuropeptide Y3 receptor, 5'UTR (low score)	1	D28433		1. [					
neurotrophic tyrosine	14.	X03541	+	+	+	+	. +	+	
kinase, receptor, type 1 (NTRK1)			• •						
neutrophil cytosolic factor 4 (40kD)	2	U5 <b>0720</b>	<u>i</u>						
NG31	1.	AF129756		1 - 1				-	
NGAL (=X83006)	1	X99133		+				<del>                                     </del>	
nibrin (NBS)	1	AF051334		11		-		-	
NIK	<u> </u>	AB014587		+++	.+	+		+	
Ninjurin 1; nerve injury-	<del> </del>	U72661		+	+	+	<u> </u>	+	
linduced protein-1			·		·			Ĺ	
nitrilase 1 (NIT1) (=AF069984)	1	AF069987							
NKG2-D (low match) (non- exact, 58%)	1	X54870					,		
Nmi	1	U32849					7		
N-myristoyitransferase 1	1	AF043324		+	+	+	+	+	
(NMT1)	<del>- 1</del> :	U79569	· · · · · · · · · · · · · · · · · · ·	+	+	+		+	
No arches-like (zebrafish) zinc finger protein (NAR)			· .			+	<u> </u>	Ť	
non-histone chromosome protein 2 (S. cerevisiae)- like 1 (NHP2L1)	7	D50420	+	+	+	•	+		·
non-muscle (fibroblast) tropomyosin	1								
non-muscle alpha-actinin	1	U48734				<b>-</b>		$\vdash$	
non-muscle myosin alkali	3	M22918	+	+	+	+	+	+	High in fetal adrenal
light chain (Hs.77385)						, .			gland and BPH stroma
non-neuronal enolase (EC 4.2.1.11)	.1 .	X16289							
non-receptor tyrosine phosphatase 1	1	M33689						Π	
normal keratinocyte substraction library mRNA, clone H22a	3	X53778	<b>+</b>	+	+	+	+	+	high in many libraries
notch group protein (N)	3	M99437		+	$\vdash$	t	<b>†</b>	t	
novel protein	1.	X99961		+		┼─	├	$\vdash$	
novel T-cell activation	1	X94232		+	+	+		+	
Protein N-ras protein NRU	1	A60196			-	-	-	<del>                                     </del>	
N-sulfoglucosamine	<u>·</u>	U60111	<del></del>	++	├	┼	╁┈	+	
sulfohydrolase (sulfamidase) (SGSH)	•		•	.			'		
nsulin induced gene 1 (INSIG1)	1	U96876	+	+	+	+	+	+	
ntegrin, alpha 4 (antigen CD49D, alpha 4 subunit of	3	L12002	+			+			
VLA-4 receptor) (ITGA14) Interferon, gamma-inducible	1	M63838	+ -	+	+	+	<del>                                     </del>	+	·····
protein 16 (IFI16) Interleukin 1, beta (IL1RB)	1	M15330		+		$\vdash$	-	+	
nuclear antigen H731-like	2	U83908		+	.+	+	╁	+	<del></del>
protein nuclear antigen Sp100	4	U36501	<del></del>		<u> </u>	+	+	+	
(SP100)			<u> </u>	<u> </u>		Ŀ	_	Ļ	
Nuclear antigen Sp100 (SP100) (85%aa)	1	P23497		:		_	L		
Nuclear antigen Sp100 (SP100) (89%aa)	1	P23497			Ŀ				
nuclear autoantigenic sperm protein (histone- binding) (NASP)		M97856	+		+				

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nuclear corepressor KAP-1 (KAP-1) (=U95040; X97548 TIF1beta zinc finger protein)		U78773	. <u>.</u>					-	
Nuclear domain 10 protein	4	U22897	+	+	+	+	+.	+	
(NDP52) Nuclear factor (erythroid- derived 2)-like 2 (NFE2L2)	1	574017		. +	+	+	+	+	
Nuclear factor of kappa light polypeptide gene	2	M58603		+	+		,+	+	
enhancer in B-cells 1 (p105) (NFKB1)									
nuclear factor of kappa light polypeptide gene enhancer in B-cells iಮಗಳಿಂದ alpha (NEKBIA)	3	M69043		+	+	+		+	
nuclear factor related to kappa B binding protein (NFRKB)	1	U08191		+	+	+		+	
nuclear mitotic apparatus protein 1 (NUMA1)	3	Z11583	+	+	+	+	+	+	
nuclear receptor coactivator 2 (GRIP1)	1	X97674			•				
nuclear receptor coactivator 3 (AIB3)	2	AF010227	+	+	+		<u> </u>	+	
nuclear receptor coactivator 4 (ELE1)	22	X77548	. :	+	+	+	+ -	+	
nuclear receptor interacting protein 1 (NRIP1)	1	X84373		+		+		+	
nuclear respiratory factor 1 (NRF1)	1	U02683	В	+	+			-	
nuclear RNA helicase, DECD variant of DEAD box family (DDXL)	4	U90426	+	+	_	+			
nuclear transcription factor Y, alpha (NFYA)	1	X59711	В	<u> </u>					
nuclear transcription factor, X-box binding 1 (NFX1)	3	U15306		+	+		+		
nuclear transport factor 2 (placental protein 15) (PP15)		X07315	+	+	+	+		•	
nucleobindin (=M96824)	1	U31336	·						
nucleobindin 1 (NUCB1)	2	M96824	+	+.	+	+	П	+	
nucleolar phosphoprotein p130 (P130)		Z34289		+	+				
nucleolar protein (KKE/D repeat) (NOP56)	1	Y12065	+	+	+	+		+	
nucleolar protein (MSP58)	1	AF015308				L			
nucleolar protein 1 (120kD) (NOL1)	1	M32110	+	+					
nucleolar protein p40	1	U86602	+	+	+	+	<u> </u>	+	
nucleolin (NCL)	2	M60858	+	+	+	+	<u> </u>	+	
nucleophosmin (nucleolar phosphoprotein B23 numatrin) (NPM1)	14	M28699	+	+	+	+		+	
nucleophosmin-retinoic acid receptor alpha fusion protein NPM-RAR long form	1	U41742							
nucleoporin (NUP358) (=D42063 RanBP2 (Ran- binding protein 2))	2	L41840							·
nucleoponn 153kD (NUP153)	1	Z25535		<u> </u>			_		
nucleoporin 98kD (NUP98)	1	U41815	<u> </u>			<u> </u>	_	<u> </u>	
nucleosome assembly protein	1	D28430							
nucleosome assembly protein 1-like 1 (NAP1L1)	1	M86667		+	+	+		*	
nucleosome assembly protein 1-like 4 (NAP1L4)	2	U77456	+	†		+		+	

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nucleosome assembly protein, 5'UTR	1	D28430							
olfactory receptor (OR7- 141)	1	U86281							
OLFACTORY RECEPTOR- LIKE PROTEIN HGMP07E (OR17-4) (non-exact 65%)	1 .	P34982			·		-		
oligodendrocyte myelin glycoprotein (OMG)	. 7	L05367		+					
O-linked N- acetylglucosamine	1	U77413	+	+		+	+	+	
(GlcNAc) transferase									
acetylglucosamine:polypep tide-N-acetylglucosaminyl transferase) (OGT)						·			
oncofetal trophobiast glycoprotein 5T4 precursor (non-exact 55%)	1	A53531				, *			
Oncogene TIM (TIM) (non- exact 84%)	1	U02082				-			
ORF (Hs.77868)	1	M68864	+	.+	+	+	+	+	
ORF1; MER37; putative transposase similar to pogo element Length = 454	1	U49973							
origin recognition complex, subunit 2 (yeast homolog)- like (ORC2L)	2	U27459				+	,		
origin recognition complex, subunit 4 (yeast homolog)- like (ORC4L) (low match)	1	AF022108							
ornithine aminotransferase (gyrate atrophy) (OAT)	2	M23204		+	+	*			·
omithine decarboxylase	1	M20372			l .	Ì		ŀ	
(ODC)									
ornithine decarboxylase antizyme, ORF 1 and ORF	11	D78361	+	+	+	+	+	+	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor	11	D78361 U07132	+	+	+	+	+	+	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2	-		· · · · · · · · · · · · · · · · · · ·				+		High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-	2	U07132		+	+	+		+	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein	2	U07132 AB002806		+	+	+		+	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) over centrosomal protein RanBPM (RANBPM) over-expressed breast	2 6 1	U07132 AB002806 D28381		+	+	+		+	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1,	2 6 1	U07132  AB002806  D28381  AB008515		+	+	+		+	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c)	2 6 1 1	U07132  AB002806  D28381  AB008515  L34839		+	+	+ +	•	+	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide)	2 6 1 1 1 1	U07132  AB002806  D28381  AB008515  L34839  U09550		+	+ + +	+ + +	+	+	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein	2 6 1 1 1 1	U07132  AB002806  D28381  AB008515  L34839  U09550  X80695		+	+ + + + + +	+ + +	+	+ + +	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH)	2 6 1 1 1 1 4 1 1 1	U07132  AB002806  D28381  AB008515  L34839  U09550  X80695  D10523  M86917  X70394	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + + +	+ + +	+ + +	+ + +	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP)	2 6 1 1 1 1 4	U07132  AB002806  D28381  AB008515  L34839  U09550  X80695  D10523  M86917  X70394  X70394	+	+ + + + + + + + + + + + + + + + + + + +	+ + + + + +	+ + +	+ + +	+ + +	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20-related) (PAK1)	2 6 1 1 1 1 4 1 1 1 2	U07132  AB002806 D28381  AB008515 L34839 U09550 X80695 D10523  M86917 X70394 X70394 U51120	+	+ + + + + + +	+ + + + + +	+ + +	+ + +	+ + +	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20-	2 6 1 1 1 1 4 1 1 2	U07132  AB002806  D28381  AB008515  L34839  U09550  X80695  D10523  M86917  X70394  X70394  U51120  D63392	+	+ + + + + + +	+ + + + + +	+ + +	+ + +	+ + +	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxoglutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20-related) (PAK1) P35-related protein (= S80990 ficolin)	2 6 1 1 1 1 4 1 1 2	U07132  AB002806  D28381  AB008515  L34839  U09550  X80695  D10523  M86917  X70394  X70394  U51120  D63392  U93569	+	+ + + + + + +	+ + + + + +	+ + +	+ + +	+ + +	High in pancreas, and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxogiutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20-related) (PAK1) P35-related protein (= S80990 ficolin)	2 6 1 1 1 1 4 1 1 2	U07132  AB002806 D28381  AB008515 L34839 U09550 X80695 D10523  M86917 X70394 X70394 U51120 D63392 U93569 X77094	+	+ + + + + + +	+ + + + + +	+ + +	+ + +	+ + +	and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxogiutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20-related) (PAK1) P35-related protein (= S80990 ficolin) p40 p40phox (=U50720)	2 6 1 1 1 1 4 1 1 2	U07132  AB002806  D28381  AB008515  L34839  U09550  X80695  D10523  M86917  X70394  X70394  U51120  D63392  U93569  X77094  U03634	+	+ + + +	+ + + +	+ + + + +	+ + +	+ + +	and activated T cells
ornithine decarboxylase antizyme, ORF 1 and ORF 2 orphan receptor (Hs.100221) OS-9 precurosor osteonectin (=X82259 BM-40) ovel centrosomal protein RanBPM (RANBPM) over-expressed breast tumor protein oviductal glycoprotein 1, 120kD (OVGP1) oxidase (cytochrome c) assembly 1-like (OXAIL) oxogiutarate dehydrogenase (lipoamide) (OGDH) oxysterol binding protein (OSBP) OZF (non-exact zinc finger) p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20-related) (PAK1) P35-related protein (= S80990 ficolin)	2 6 1 1 1 1 4 1 1 2	U07132  AB002806 D28381  AB008515 L34839 U09550 X80695 D10523  M86917 X70394 X70394 U51120 D63392 U93569 X77094	+	+ + + + + + +	+ + + + + +	+ + +	+ + +	+ + +	and activated T cells

p62 nucleoponn	1	X5 <b>8521</b>						•	
p63 mRNA for	1	X6991 <b>0</b>	+	+	+	+		+	
transmembrane protein				<u> </u>		<u> </u>		ļ .	٠.
PAC clone DJ0701O16	1 .	Q07108		· 1					,
from 7q33-q36 (non-exact 54%)		. 1						ŀ	
palmitoyl-protein	10	U44772		+	+	+	_	+	
thioesterase (ceroid-				i .				i	
lipofuscinosis, neuronal 1,			-			-			
infantile; Haltia-Santavuori				]					
disease) (PPT) papillary renal cell	1 .	X99720	+	+	+	+	+	+	
carcinoma (translocation-	•	1.007.20				i	İ.	1	
associated) (PRCC)								<u> </u>	
PAR protein	1	AF115850		+.		+			
partial EST (Ciorle C-1gh04)	, 114	243627				ĭ	į	1 7	
PAX3/forkhead	1	U02368				T			
transcription factor gene	. •			1		· ·		1	
fusion	4	D86862		+-+	. +	+		+	
paxillin (PXN)	<del></del>	AJ007398	+	+	+	+	<u> </u>	+	
PBK1 protein			<del>-</del>	┵	<u> </u>	ļ <del>.</del>	<u> </u>	<del>  </del>	
PBS-EST (nz92e01.s1 NCI_CGAP_GCB1 clone	. 1	AA732534				ł			
IMAGE:1302936) (low		, ;				1		1	1
score)	_	1				<u>L.</u>	L.		
PDZ domain protein	1.	AJ224747	+			+		+	
(Drosophila inaD-like)					l		1		
(INALD) PEBP2aC Runt domain	1	Z38108		<del> </del>	├	+		├	
encoding gene (=Z35728)	•						1	l	
peptidase D (PEPD)	1	J04605							
peptidylprolyl isomerase A	3	Y00052		+	+	+	+	+	high in many libraries
(cyclophilin A) (PPIA)	• •			<u> </u>	L	ــــــ	<u> </u>	<u> </u>	
peptidylprolyl isomerase D (cyclophilin D) (PPID)	2	L11667	T .	*	+		+	+	
peptidylprolyl isomerase E	1	AF042386		. +	+	┼┈	+	+	<del> </del>
(cyclophilin E) (PPIE)						L			
PERB11.1 (=U56942 MHC	1	U69630			·				
dass I chain-related protein						1			
A) perforin 1 (preforming	14	M28393		┼	-	╁	├	+	<del> </del>
protein) (PRF1)	• •			1	1				
peroxisomal acyl-CoA	2	X86032				T			· .
thioesterase (PTE1)		V 74 440		<del>                                     </del>	+	+	+	+	
Peroxisomal acyl- coenzyme A oxidase	1	X71440	•	*	T .	+	T	-	
peroxisomal farnesylated	1	X75535		+	+	+	+	+	
protein (PXF)				l					
phorbol-12-myristate-13-	1	D90070	B, W					1	
acetate-induced protein (PMAIP1)			•	1.	ļ	1	ĺ	1	
phosphate carrier	1 .	X77337	<u></u>	+-		+	+-	+-	
(mitochondrial gene?)					Ŀ			<u></u>	<u> </u>
Phosphate carrier,	3	X60036	+	+	+	+		+	
mitochondrial (PHC)	<u>1</u>	L28957	<b>—</b>	+-	+	+	+	╂—	<del> </del>
cytidylyltransferase 1,	'	120901	'	1	'	1	'	1	
choline, alpha isoform			,	1 .	1			1	
(PCYT1A)				1		<b>↓</b>	<u> </u>	<b></b>	
PHOSPHATIDATE	1	Q92903						1	•
CYTIDYLYLTRANSFERAS E (CDP-DIGLYCERIDE)				1	1				
phosphatidylinositol 3-	2	U57843		+-	1	+-	<del>                                     </del>	+	-
kinase delta catalytic	-				1			1	
subunit		* * * * * * * * * * * * * * * * * * *		<del> </del>	<del> </del>	+-	₩	1.	
phosphatidylinositol 4- kinase, catalytic, beta	3	AB005910	+	+	+	+		+	
polypeptide (PIK4CB)		1	-	1					
phosphatidylinositol glycan,	1	L19783		+	+	+	+	+	
dass H (PIGH)		1		1	1	1	1	ł	i

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phosphalidylinositol transfer protein (PI-TPbeta)	2	D30 <b>037</b>		·		,			
phosphatidylinositol	2	X98654	В, Т	+	·		_		
transfer protein,		•	lymphoma						·
membrane-associated (PITPNM)					·				
phosphatidylinositol	1	X98654	· ·						
transfer protein.	•		1	l			. '		
membrane-associated (PITPNM) (non-exact 64%)		· - ·							
phosphatidylinositol-4-		U14957		<u> </u>	+	Н	+	$\vdash$	· · · · · · · · · · · · · · · · · · ·
phosphate 5-kinase, type	•	014857	1.		l '				
II, alpha (PIP5K2A)				1	1				
phosphatidylinositol-4-	1	U8 <b>5245</b>	<del>                                     </del>	; <del>+</del>	+	+		+	
phosphate 5-kinase, type					1				
II, beta (PIP5K2B)			<u> </u>				•		
phosphodiesterase 7A	. 1	L12052	B, W	+	+	i •	+		
(PDE7A)	1	112075			LY	ı.		ļ	
phosphodiesterase IB (PDES1B)		U56976		יט ן	€L T			1	
phosphoglucomutase 1	2	M83088	<del>                                     </del>	+	1+	+		+	
(PGM1)	-								
phosphogluconate	1	U30255	1	<b> </b>	+				
dehydrogenase (PGD)					L				
phosphoglycerate kinase 1	12	√00572			-				
(PGK1)		104472	1		<u> </u>	+	+	1	
phosphoglycerate mutase 1 (brain) (PGAM1)	-3	J04173	+	+	+	<b> </b> •	<b>T</b>	+	
phosphoglycerate mutase	1	M55673	<del>                                     </del>	+	+		-	+	
2 (muscle) (PGAM2)	•			1			İ	1	
phosphoinositide-3-kinase,	1	Z29090	<del>                                     </del>	+	+	+			
catalytic, alpha polypeptide		:	1						
(PIK3CA)					1		<u> </u>		
phosphoinositide-3-kinase,	4	U86453		+	+	+		+	
catalytic, delta polypeptide	·.		1		1				
(PIK3CD)	4	X83368	<u> </u>	ļ	<u> </u>		_		
phosphoinositide-3-kinase,	1	A03300	•	l	1		ŀ	l	
catalytic, gamma polypeptide (PIK3CG)		,			1	1	-	1	
phospholipase C	1	X14034	<del>                                     </del>		$\vdash$	$\vdash$		├	
phospholipase C, delta 1	. 2	U09117	<del> </del>	+	+	+.		+	<del></del>
(PLCD1)	. 2	003117	<b>!</b>	'	'	'		, '	
phospholipase C, gamma 1	1	M34667	+	+	+	+		+	
(formerly subtype 148)		ŀ		i .			·	1	
(PLCG1)					<u> </u>		L	L	
phospholipid scramblase	1	AF008445		<u>L</u> _		<u> </u>	İ		
phosphoribosyl	1	D61391		+	+			+	
pyrophosphate synthetase-		•		1	1	1	1	1	
associated protein 1					l .	1	·	1	
(PRPSAP1) phosphoribosylglycinamide	3	X54199	+	+	+	+	+	+	
formyltransferase.				l	_	` .	ļ .		
phosphoribosylglycinamide				l <sup>*</sup>				1	
synthetase,								l	
Iphosphoribosylaminoimida		l		l				l	
zole synthetase (GART)		D20646	ļ	<b>├</b>	· ·	<b>.</b>		1	
phosphorylase kinase,	3	D38616	1	+	+	+	+	+	
alpha 2 (liver), glycogen storage disease IX				l	]	1			
(PHKA2)		· ·		1	1		٠.		1
phosphorylase, glycogen;	1	U47025	+	+	+	T -		+	
brain (PYGB)		ļ	<u></u>	<u>L</u>		L		$oldsymbol{ol}}}}}}}}}}}}}}}}}$	·
phosphorylase, glycogen;	1	U47025				·			
brain (PYGB) (low match,				ł	1	1		1.	
non-exact, 75%)		VIESSS	<del> </del>		-	+	<u> </u>	+	
phosphorylase, glycogen;	1	Y15233	1 .	+	+	*	1	*	1
liver (Hers disease, lycogen storage disease				ľ	1.		1	1	
type VI) (PYGL)					1		1	1	
phosphorylation regulatory	2	<del> </del>	†	<b>†</b>	<b>†</b>	1	$\vdash$	T	
protein HP-10	_			L	L .	L		L.	· ,
phosphotidylinositol	1	D30036	+	+	+	+	Г	+	
transfer protein (PITPN)	1	:	1	1	1	1	1	1	1

pigment epithelium-derived factor (PEDF)	1	U2995 <b>3</b>	<b>+</b> :	+	+	+	+	+	
pim-1 oncogene (PIM1)	1	M24779	+	+	+	L		+	٠.
pinin, desmosome associated protein (PNN)	1.	U77718		В,	mon	ocyte	e, T	ymp	homa
placenta (Diff33)	.5	U49188		+	+	+	Ţ	+	
placenta (Diff33) (non- exact, 69%)	1	U49188		•					
placenta (Diff48)	18	U49187	+					<del>                                     </del>	· · · · · · · · · · · · · · · · · · ·
placenta (Diff48) (low match)	1	U49187							
placenta(Diff48) (low match)	1	U49187						<u> </u>	
plasminogen activator,		X74039		+		+		+	
(PLAUR)		MOERCH		'				<u>'</u>	
platelet factor 4 (PF4)	1	M25897			+	ļ		+	
platelet/endothelial cell adhesion molecule (CD31 ntigen) (PECAM1)	8	M37780		+	+	+	+	+	
platelet-activating factor acetylhydrolase 2 (40kD) (PAFAH2)	4	U89386		+	+	+			
platelet-activating factor acetylhydrolase, isoform lb,	1	U72342	+	+	. +	+	+	+	
alpha subunit (45kD) (PAFAH1B1)		·							
platelet-activating factor receptor (PTAFR)	. 1	D10202		+				+	
pleckstrin (PLEK)	10	X07743			+	+		+	
pleckstrin (PLEK) (low match)	1	X07743							
pleckstrin homology, Sec7 and coiled/coil domains 1(cytohesin 1) (PSCD1)	4.	M85169	+	1		+		+	
pleckstrin homology, Sec7 and coiled/coil domains,	4	L06633	+			+		·	
binding protein (PSCDBP) pM5 protein		X57398	+	++	+	+	<u> </u>	+	<u> </u>
PMP69	2	Y14322				H		H	
poly (ADP-ribose)	<del>-</del> -	X56140		-				-	
polymerase (NAD (+) ADP- ribosyltransferase) (=X16674)		,,,,,,,							
poly(A) polymerase (PAP)	1	X76770	+	+	+	+		+	
poly(A)-binding protein-like	19	Y00345	+	+	+	+	+	+	•
poly(rC)-binding protein 1 (PCBP1)	3	X78137	+	+	+	+	+	+	
polyadenylate binding protein	1	U75686							·
polycystic kidney disease 1 (autosomal dominant) (PKD1)	5	U24498			-				
polymerase (DNA directed), beta (POLB)	1	D29013	<u> </u>	+			+	+	
polymerase (DNA directed), gamma (POLG)	6	D84103					-	-	
polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A)	1	X63564	.+	+	+	+	+	+	
polymyositis/scleroderma autoantigen 2 (100kD) (PMSCL2)	1	L01457	+	+	+	+	+	+	
polypyrimidine tract binding protein (heterogeneous nuclear ribonucleoprotein I) (PTB)	1	X65372	+	+	.+	+	+	+	

WO 00/40749								rc	1/CA00/00005
positive regulator of programmed cell death ICH-1L (Ich-1)	3	U13021			+				
postmeiotic segregation increased 2-like 12 (PMS2L12)	1	M16514	+	+	+	+		+	
postmeiotic segregation increased 2-like 8 (PMS2L8)	1	U38964	+	+	+	+		+	
potassium inwardly- rectifying channel,	. 1	D87291			,	+		+	
subfamily J, member 15 (KCNJ15) potassium voltage-gated	1	AF051 <b>426</b>	·	+	+			+	
channel, KQT-like subfamily, member 1	;-`								
(KCNQ1) POU domain, class 2, associating factor 1 (POU2AF1)	1	Z49194				+			
POU domain, class 2, transcription factor 1 (POU2F1)	2	X13403		+		+	7 .		
PPAR binding protein (PPARBP)	1	Y13467	+	+	+	+		+	
PPAR gamma2	1	D83233	l	<u></u>		<u> </u>			
pre-B-cell colony- enhancing factor (PBEF)	8	U02020							·
prefoldin 1 (PFDN1)	1	Y17392	+	+	+	+	+	+	
prefoldin 5 (PRFLD5)	3	D89667	В	+	+		+		
prefoldin subunit 3 (=U96759 von Hippel- Lindau binding protein (VBP-1))	[	Y17394							
pregnancy-associated plasma protein A (PAPPA)	1	. U28727		+	<b></b> -	+			high in placenta
pre-mRNA splicing factor SF3a (60kD), similar to S. cerevisiae PRP9		U08815	+	+	+	+		+	
(spliceosome-associated protein 61) (SF3A60)							<u> </u>		
pre-mRNA splicing factor SF3a (60kD), similar to S. cerevisiae PRP9 (spliceosome-associated	1	U08815							
protein 61) (SF3A60) (low score)									
pre-mRNA splicing factor SRp20, 5'UTR	2	D28423		<u> </u>			·		·
preprotein translocase (TiM17)	3	X97544	<u> </u>	<u> </u>	+	+		+	
prion protein	1	X82545							<u> </u>
prion protein (p27-30) (Creutzfeld-Jakob disease, Gerstmann-Strausler- Scheinker syndrome, fatal	1	M13899		+	+	+		+	
familial insomnia) (PRNP) pristanovi-CoA oxidase	1 :	Y11411		-	_	-	-		
(low match) pristanoyl-CoA oxidase	1	Y11411		<del> </del>	-	-	-	_	
(low score) procollagen-lysine, 2-	1	M98252	<u> </u>	+	+	+	-	+	· · · · · · · · · · · · · · · · · · ·
oxoglutarate 5- dioxygenase (lysine hydroxylase, Ehlers-Danlos									
syndrome type VI) (PLOD) procollagen-proline, 2- oxoglutarate 4- dioxygenase (proline 4- hydroxylase), alpha	1	M24486	+	+	+	+	+	+	
polypeptide 1 (P4HA1)							<u>L</u>	<u> </u>	

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procollagen-proline, 2- oxoglutarate 4-	4	X05130	+ :	+	+	+	+	+	
dioxygenase (proline 4- hydroxylase), beta									
polypeptide (protein disulfide isomerase; thyroid hormone binding protein									
p55) (P4HB)		100404		Ŀ	+				
profilin 1 (PFN1) progesterone receptor-	1 2	J03191 U28918	+	+	•	+	+	+	
associated p48 protein (P48)			• .						
prohibitin (PHB)	1	S856 <b>55</b>		.+	+	+	+	+	
proliferating cell nuclear antigen (PCNA)	3	J04718	+	+	+	+		+	
preikeration-associated gene A (natural iller-	( <b>4</b> - 1	L19184	₽ .	4. 1	#	+	14	•	. '
enhancing factor A) (PAGA)									-
proline-rich protein BstNI subfamily 2 (PRB2) (non- exact, 43%aa)		S62936							
proline-senne-threonine phosphatase interacting protein 1 (PSTPIP1)	1	U94778							
prolyl endopeptidase (PREP)	2	X74496	-	+		+		+	
prolylcarboxypeptidase (angiotensinase C) (PRCP)	5	L13977		+	+	+	+	+	
promyelocytic leukemia (PML)	1	M80185	+	+	. +	+		+	
properdin P factor, complement (PFC)	4	X57748	+						
pro-platelet basic protein (includes platelet basic	1	M54995			+	+		+	
protein, beta- thromboglobulin,				•	٠.				
connective tissue-activating peptide III, neutrophil-activating peptide-2) (PPBP)									
pro-platelet basic protein (includes platelet basic	7	M54995	+	ļ	+		+		
protein, beta- thromboglobulin, connective tissue-	-								. '
activating peptide III, neutrophil-activating peptide-2) (PPBP)									
proprotein convertase subtilisin/kexin type 7 (PCSK7)	. 4	U40623							
prosaposin (variant Gaucher disease and variant metachromatic leukodystrophy) (PSAP)	89	D00422	+	+	+	+	+	+:	
prostaglandin- endoperoxide synthase 1 (prostaglandin G/H	<b>1</b>	U63846	В	+			+	+	
synthase and cyclooxygenase) (PTGS1)		145500						_	·
prostaglandin- endoperoxide synthase 2 (prostaglandin G/H synthase and	2	L15326							
cyclooxygenase) (PTGS2) prostaglandin-	1	D64068			<u> </u>	<del>                                     </del>	-		<u> </u>
endoperoxide synthase-1 (=L08404; U84208) (all promoters)	•	D04000							
prostate carcinoma tumor antigen (pcta-1)	2	L78132							

WO 00/40749			PCT/CA00/00005						
protease inhibitor 1 (anti- elastase), alpha-1- antitrypsin (PI)	17	K02212		+	+	+	+	+	high in many libraries
protease inhibitor 2 (anti-	1	M93056		-		+.		+	
monocyte/neutrophil (ELANH2) (low match) proteasome (prosome,	3	L02426	В	· ·	+	_		+	-
macropain) 26S subunit, ATPase, 1 (PSMC1)			<u>-</u>			·			
proteasome (prosome, macropain) 26S subunit, ATPase, 3 (PSMC3)	1	M34079	+	+	+	+		+	
proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMC4)	2	AF020736							
proteasome (prosome, macropain) 26S subunit, ATPase, 5 (PSMC5)	5	L38810	+	+	+	+	+	+	
proteasome (prosome, macropain) 26S subunit, ATPase, 6 (PMSC6)	2	D78275	+	+	+	+	, · .		
proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11)	1	AF001212	1	+			+	·	
proteasome (prosome, macropain) 26S subunit, non-ATPase, 2 (PSMD2)	2	D78151		+	+			+	
proteasome (prosome, macropain) 26S subunit, non-ATPase, 5 (PSMD5)	1	S79862	T :	+	+		+		
proteasome (prosome, macropain) 26S subunit, non-ATPase, 7 (Mov34		D50063		+	+	+	-	+	high in many libraries
homolog) (PMSD7) proteasome (prosome,	1	AB003103		+	+	+		+	
macropain) 26S subunit, on-ATPase, 12 (PMSD12) proteasome (prosome,	3	L07633	+	+	+	+	-	+	
macropain) activator subunit 1 (PA28 alpha) (PSME1)									
proteasome (prosome, macropain) subunit, alpha type, 3 (PSMA3)	2	D00762		+	+	+		+	
proteasome (prosome, macropain) subunit, alpha type, 5 (PSMA5)	3	X61970	+	+	+	+		+	
proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7)	3	AF054185		+	+ :	+	+	+	
proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7) (low match)	1	AF022815							
proteasome (prosome, macropain) subunit, beta type, 1 (PSMB1)	1	D00761	+	+	+	+	+	+	
proteasome (prosome, macropain) subunit, beta type, 10 (PSMB10)	1	X71874	+	+		+	+	+	
proteasome (prosome, macropain) subunit, beta type, 6 (PMSB6)	1	D29012		+	+	+		+	
proteasome (prosome, macropain) subunit, beta type, 8 (large multifunctional protease 7) (PSMB8)		U17497	+	+	+	+		+	
proteasome (prosome, macropain) subunit, beta type, 9 (large multifunctional protease 2) (PSMB9)	3	214977	+			+		+	

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proteasome (prosome, macropain) subunit, beta ype, 7 (PSMB7)	1	D38048	+	+	+	+	. +	+	
protective protein for beta- galactosidase	3	M22960	+	+	+	+	+	+	
(galactosialidosis) (PPGB) protein A alternatively spliced form 2 (A-2)	1	U47925		. +				<u> </u>	
protein activator of the interferon-induced protein	1	AF072860		+	+	+		+	high in testis
kinase (PACT) protein disulfide isomerase- related protein (P5)	2	D49489	+	+	+	+	+	+	
protein geranylgeranyltransferase	1	L25441	+	+	+				
(PGGT1B)	20	M24194	+	+	+	+	+	+	high in many libraries
chicken B complex protein, guanine nucleotide binding (H12.3)									
protein kinase A anchoring protein	1	AF037439		+			·		
protein kinase C substrate 80K-H (PRKCSH)	2	U50317	+	+	+	+		+	
protein kinase C, beta 1 (PRKCB1)	6	X06318	+	+	+	+		+	
protein kinase C, delta (PRKCD) protein kinase C, eta	1	M55284	T		+			+	
(PRKCH)	1	X75756		<u> </u>	<u>'</u>				
(PRKCM) (non-exact 78%)	· 2 .	D26181	+	+	+	+		+	
(PRKCL1) protein kinase, AMP-		U42412	B, T	+	+	_	<u> </u>	<u> </u>	
activated, gamma 1 non- catalytic subunit (PRKAG1)			lymphoma						
protein kinase, cAMP- dependent, regulatory, type I, alpha (tissue specific extinguisher 1) (PRKAR1A)	4	M18468		+	+	+	+	+	
protein kinase, DNA- activated, catalytic polypeptide (PRKDC)	1	U47077		+	+		+	+	
protein kinase, mitogen- activated 1 (MAP kinase 1; p40, p41) (PRKM1)	1	Z11695	В	+			+		
protein kinase, mitogen- activated 6 (extracellular signal-regulated kinase, o97) (PRKM6)	1	L77964		+		+	+	+	
protein kinase, mitogen- activated, kinase 3 (MAP kinase kinase 3) (PRKMK3)		U66839	+	+	+	+	+		
protein phosphatase 1, catalytic subunit, alpha isoform (PPP1CA)	5	M63960	. +	+	+	+	+	+	
protein phosphatase 1, regulatory subunit 10 (PPPR10)	3	Y13247		*	+	+		+	
protein phosphatase 1, regulatory subunit 7 (PPP1R7)	2	Z50749	+	+	+	+	+	+	
protein phosphatase 2 (formerly 2A), catalytic subunit, beta isoform (PPP2CB)	1	X12656	*	+	+	+	+	+	
protein phosphatase 2 (formerly 2A), regulatory subunit B" (PR 72), alpha isoform and (PR 130), beta isoform (PPP2R3)	1	L07590			+	+		+	

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protein phosphatase 2, regulatory subunit B (856), alpha isoform (PPP2R5A)	2	L42373	+	+	+	+		+	
protein phosphatase 2, regulatory subunit B (B56), delta isoform (PPP2R5D)	3	D78360		+	+	+		+	
protein phosphatase 2, regulatory subunit B (B56), gamma isoform (PPP2R5C)	1	D26445	· +	+	+	+		+	
protein phosphatase 2A regulatory subunit alpha- isotype (alpha-PR65)	5	J02902	+	+	+	+		+	
protein phosphatase 4 (formerly X), catalytic subunit (PPP4C)	2	AF097996	+	+	+	+		+	
protein tyrosine kinase 2 beta (PTK2B)	4	L49207		+.	•	+		+	
protein tyrosine phosphatase epsilon	1	X54134							
protein tyrosine phosphatase type IVA, member 2 (PTP4A2)	2	L48723	+	+	+	+	;	+	
protein tyrosine phosphatase, non-receptor type 1 (PTPN1)	<b>1</b> · · · · · ·	M31724	+	+	+	+			_
protein tyrosine phosphatase, non-receptor type 12 (PTPN12)	1	M93425		+	+	+		+	high in testis
protein tyrosine phosphatase, non-receptor type 12 (PTPN12) (non- exact, 70%)	<b>1</b>	M93425							
protein tyrosine phosphatase, non-receptor type 2 (PTPN2)	2	M25393		+	+	+.		+	
protein tyrosine phosphatase, non-receptor type 4 (megakaryocyte) (PTPN4)	-1	M68941			+	+		*	
protein tyrosine phosphatase, non-receptor type 6 (PTPN6)		M74903	+	+	+	+		+	
protein tyrosine phosphatase, non-receptor type 7 (PTPN7)	-1	D11327	+			+		+	
protein tyrosine phosphatase, receptor type, alpha polypeptide (PTPRA)	1	M34668	*	+	+	+		+	
protein tyrosine phosphatase, receptor type, c polypeptide (PTPRC)	44	Y00638	•		-	+		.+	
protein tyrosine phosphatase, receptor type, M (PTPRM)	1	X58288		+	+	+		+	
protein tyrosine phosphatase, receptor type, N polypeptide 2 (PTPRN2)	2	U81561		+	-	+		+	
protein with polyglutamine repeat (ERPROT213-21)	1	U94836	+	+	+	+		+	
protein-kinase, interferon- inducible double stranded RNA dependent inhibitor (PRKRI)	- <b>1</b>	U28424		+	+	+	*	+	
protein-L-isoaspartate (D- aspartate) O- methyltransferase (PCMT1)	4	D13892	•	.+	+				
proteoglycan 1, secretory granule (PRG1)	7	J03223		+		+		+	i i
prothymosin, alpha (gene sequence 28) (PTMA)	12	M14483	+	+	+	+	+	+	·
			1						

WO 00/40/43								•	
prp28, U5 snRNP 100 kd protein (U5-100K)	7	AF026402	<b>+</b> ;	+	+	+		+	
PRP4/STK/WD splicing factor (HPRP4P)	1	AF001687	,	+	+	+		+	
PTK7 protein tyrosine kinase 7 (PTK7)	1	U40271		+	+	+		+	
purinergic receptor P2X, ligand-gated ion channel, 4 (P2RX4)	-3	AF000234		+	+	.+		+	
purinergic receptor P2X, ligand-gated ion channel, 7 (P2RX7)	1	, Y12851	+						macrophage only
puromycin-sensitive aminopeptidase (PSA)	1	Y07701		+	÷+.			+	
putative ATP(GTP)-binding protein	2	AJ010842		+				+	
putative brain nuclearly- targeted protein (KIAA0765)	1	AB018308	+	+	+	+		+	
putative chemokine receptor, GTP-binding protein (HM74)	1	D10923	+						
putative dienoyl-CoA isomerase (ECH1)	1	AF030249					Ė		
putative G-binding protein	1	AF065393	·	-		<del>                                     </del>		1	
Putative human HLA class	<del>1</del>	U73477	В.	+		<del>                                     </del>	+	<del>                                     </del>	<del> </del>
II associated protein I (PHAP1)					•				
Putative L-type neutral amino acid transporter (KIAA0436)	. 1	AB007896						·	
putative mitochondrial space protein 32.1	1	AF050198	·						
PUTATIVE MUCIN CORE PROTEIN PRECURSOR	1	Q04900							
24 (MULTI- GLYCOSYLATED CORE PROTEIN 24) (MGC-24)									
(MUC-24) putative nucleic acid	2	X76302	+	+ -	+	+		+	
binding protein putative outer	1	U58970	· .	+	+	+		+	
mitochondrial membrane   34 kDa translocase   Htom34	•	. 036970							
putative p150 (non-exact 88%)	1	U93568							
putative translation initiation factor (SUI1)	1	L26247	+	+	+	+	+	+	High in moderately differentiated colon adenocarcinoma
putative tumor suppressor protein (123F2)	1	AF061836		+	+	+		+	
рупоline 5-carboxylate reductase	1	M77836	+	+	+	+		+	
pyruvate dehydrogenase (lipoamide) alpha 1 (PDHA1)	1	D90084		+	+	+	+	+	
pyruvaté dehydrogenase (lipoamide) beta (PDHB)	2	J03576	+	+	+	+		+	
Pyruvate dehydrogenase complex, lipoyl-containing component X; E3-binding protein (PDX1)	3	Y13145		+	+				
pyruvate kinase, muscle (PKM2)	11	M23725					+		
RAB, member of RAS oncogene family-like (RABL)	1	U18420		+	+	+		+	
RAB1, member RAS oncogene family (RAB1)	3	M28209		+	+	+		+	
RAB11A, member RAS oncogene family (RAB11A)	2	X56740	+	+	+	+		+	high in spleen

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RAB11B, member RAS	7	D45418		+				+	
oncogene family (Rab11B) RAB27A, member RAS	3	U38654		+		+			
oncogene family (RAB27A) RAB5B, member RAS	1	X54871	<del></del>	+	+	+	-	+	
oncogene family (RAB5B)			· ·						
RAB6, member RAS oncogene family (RAB6)	1	M28212	•	+			. }	+	
RAB7, member RAS	. 1	X93499	+	+	+	+		+	
oncogene family (RAB7) RAB7, member RAS	2	D84488		+ 1	+	+		+.	<del></del>
oncogene family-like 1 (RAB7L1)									
RAB9, member RAS oncogene family (RAB9)	1	U44103				·			
RAD50 (S. cerevisiae) homolog (RAD50)	2	U63139		+	+	+	-		
RAD51 (S. cerevisiae) homolog C (RAD51C)	1	AF029669		+	+	+		+	
Radin blood group (RD)	2	L03411		+	+	+		+	
RAE1 (RNA export 1,	3	U84720	.+	+	+.	+	2	+	
S.pombe) homolog (RAE1) ralA-binding protein	2	L42542	+	+	+	+			
(RLIP76) RAN binding protein 2-like	2	AF012086		1					
1 (RANBP2L1)		X82260	+	+	+	+		+	·
Ran GTPase activating protein 1 (RANGAP1)	3		•		Ţ	T		Ť	
RAN, member RAS oncogene family (RAN) (low match)	1	M31469							
RanBP2 (Ran-binding protein 2) (=U19248;	1	D42063							
L41840 sapiens nucleoporin (NUP358))									
ransforming growth factor, beta receptor II (70-80kD) (TGFBR2)	4	D50683	+	+	+	+		+	
RAP1A, member of RAS oncogene family (RAP1A)	10	M22995	+	+	+	+	+	+	
RAR-related orphan receptor C (RORC)	1	U16997						+	
RAS guanyl releasing protein 2 (calcium and	1	Y12336	+	+					
DAG-regulated) ras homolog gene family,	12	X05026	+	+	+	+	+	+	high in ovary
member A (ARHA) ras homolog gene family,	1	X61587	+	+	+	+	_		·
member G (rho G) (ARHG) ras homolog gene family,	2	Z35227	+	+	+			+	
member H (ARHH)		M37191		-		ļ		ļ	
Ras-GTPase activating	2	AF053535	+	++	+	+	-	+	
protein SH3 domain- binding protein 2		Al obbook							
(KIAA0660) Ras-GTPase-activating protein SH3-domain-	3	U32519	+	+	+	+		+	
binding protein (G3BP) ras-related C3 botulinum	4	'	<u> </u>	4	+	$\vdash$	├	+	
toxin substrate 2 (rho family, small GTP binding	11	M29871							
family, small GTP binding protein Rac2) (RAC2) RAS-RELATED PROTEIN RAP-1B (GTP-BINDING	11	M29871 P09526						-	
family, small GTP binding protein Rac2) (RAC2) RAS-RELATED PROTEIN				+	+	+			
family, small GTP binding protein Rac2) (RAC2) RAS-RELATED PROTEIN RAP-1B (GTP-BINDING PROTEIN SMG P21B)		P09526		+		+			

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regulator of G protein signalling 6 (RGS6)	1	AF073920		+				•	
regulator of G-protein signalling 14 (RGS14)	2	AF037195	+	+	+	+			
regulator of G-protein	6	L13391	+	+	+	+		+.	
signalling 2, 24kD (RGS2) regulator of G-protein	1	O15539							
signalling 5 (RGS5) (49% aa)							•		
regulatory factor X, 4 (influences HLA class II expression) (RFX4)	1	M69297	<del>-</del> ·		+	+			
regulatory factor X, 5 (influences HLA class II expression (RFX5)	2	X85786		+	+			+	
replication protein A1 (RPA1)	1 ,	M63488	+	+	+	+ ,		+	
replication protein A3 (14kD) (RPA3) (low match)	1	L07493							
reproduction 8 (D8S2298E)	1	D83767		+	+.	+			
requiem, apoptosis response zinc finger gene (REQ)	2 .	U94585	+	+	+ .	+	٠	+	
requiem, apoptosis	1	U94585							
(REQ) (=AF001433) (low match)								ŀ	
restin (Reed-Steinberg cell- expressed intermediate filament-associated	1	M97501	В, Т	+	+				
protein) (RSN) retinoblastoma 1 (including	3	L11910	. +	+	+	+			
osteosarcoma) (RB1) retinoblastoma binding	1	AF087481				_			
protein 2 homolog 1 (RBBP2H1)	•					ļ			
retinoblastoma-binding protein 1 (RBBP1)	1	S66427	+	+					
retinoblastoma-binding protein 2 (RBBP2)	5	S66431	+	+	+	+		+	
retinoblastoma-binding protein 4 (RBBP4)	. 1	X71810		+	+	+		+	
retinoblastoma-binding protein 4 (RBBP4)	1	X74262		+	+	+		+	
retinoblastoma-binding protein 7 (RBBP7)	1	U35143						Ţ :	
retinoblastoma-like 2 (p130) (RBL2)	1	X76061		+	+	+		+	
retinoic acid receptor responder (tazarotene induced) 3 (RARRES3)	1	AF060228		+		+	+	+	
retinoic acid receptor, alpha (RARA)	1	X06538	+	+		+			
retinoic acid responsive (NN8-4AG)	1	U50383	<u> </u>	+		+		+	
retinoid X receptor beta (RXR-beta)	2	X66424	· · · · · · · · · · · · · · · · · · ·	+	+	+		+	
REV3 (yeast homolog)-like, catalytic subunit of DNA polymerase zeta (REV3L)	1	AF035537							
Rho GDP dissociation inhibitor (GDI) beta (ARHGDIB)	23	L07916	+.	+.	+	+	+	+	
Rho GTPase activating protein 4 (ARHGAP4)	2	X78817	+	+	T				
Rho GTPase activating protein 4 (ARHGAP4) (low match)	1	P98171							
Rho-associated, coiled-coil containing protein kinase 2 (ROCK2)	1	AB014519							
ribonuclease 6 precursor (RNASE6PL)	2	U85625	+	+	+	Ŧ	+	+	
(NIANOEOFE)	<u> </u>		4	—	L	Ь	<u> </u>	ــــــــــــــــــــــــــــــــــــــ	<del></del>

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ribonuclease 6 precursor (RNASE6PL) (low match)	1	U85625							
ribonuclease, RNase A family, 2 (liver, eosinophil-	-1	X55988					+		
derived neurotoxin) (RNASE2)									
ribonuclease/angiogenin inhibitor (RNH)	3	M36717	. +	+	+	+		+	
ribonucleoside diphosphate reductase M1 subunit	1	X65708							
nbonucleotide reductase M2 polypeptide (non-exact 91%)	1	P31350						-	
ribophorin I (RPN1)	1	Y00281	+	+	+	+		+	
ribophorin II (RPN2)	. 1	Y00282	+	+	+	+	+	+	
ribosomal 18S rRNA	3	M10098							
ribosomal 28S RNA	1	M11167							
ribosomal phosphoprotein P0, 5'UTR (low match) Ribosomal protein	1	D28418		٠.		<u> </u>	7		
ribosomal protein L10	30	L25899	+	+	+	+	+	+	high in many libraries
(RPL10) RIBOSOMAL PROTEIN	2	P53025		-				-	
L10A (CSA-19) ribosomal protein L11	4	X79234	+	+	+	+	+	+	Alveolar
(RPL11) ribosomal protein L12	2	L06505	+	+	+	+	+	+	rhabdomyosarcoma
(RPL19) ribosomal protein L13	1.	P26373	+	+	+	+	+	+	high in many libraries
(PRL13) ribosomal protein L14	4	D87735	. +	+	.+	+	+	+	high in many libraries
(RPL14) ribosomal protein L17 (RPL17)	4	X53777	+			·		_	blood only
ribosomal protein L18 (RPL18)	10	L11566	+	+	+	+		+	
ribosomal protein L18a (RPL18A)	5	L05093		+	+	+	+	+	High in fetal adrenal
ribosomal protein L18a	2	X80821				+			
ribosomal protein L19 (RPL19)	15	X63527	+	+	+	+	+	+	
ribosomal protein L21 (RPL21)	6	U14967	+	+	+	+	+	+	
ribosomal protein L22 (RPL22)	3	D17652	+	+	+	+		+	
ribosomal protein L23 (RPL23)	2	X55954	+.	+	+	+	+	+	high in many libraries
ribosomal protein L23a (RPL23A)	5	U37230	+	+	+	+	+	+	high in many libraries
ribosomal protein L26 (RPL26)	8	X69392	+	+	+	+	+	+	
ribosomal protein L27 (RPL27)	6	L05094	+	+	+	+		+	
ribosomal protein L27a (RPL27A)	10	U14968	+.	+	+	+	+	+	
ribosomal protein L28 (RPL28)	6	U14969	+	+	+	Ľ		+	
ribosomal protein L29 (RPL29)	6	U10248	+	+	+	+	+	+	
ribosomal protein L3 (RPL3)	81		+	+	+	+	+	<del> </del>	high in many libraries
ribosomal protein L3 homologue	81	X06323					Ŀ		
ribosomal protein L30 (RPL30)	6	X79238	+	+	+	+	+	+	high in lymphoma
ribosomal protein L30	1	X79238							
(RPL30) (low score)	10	X15940	+	+	+	+	+	+	High in alveolar

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ribosomal protein L32 (RPL32)	3	X03342	+	+	+	+	+	+	
ribosomal protein L33-like (RPL33L)	<u> </u>	AF047440	<del></del>	+	+	+		+	·
ribosomal protein L34 (RPL34)	5	L38941		+	+	+	+	+.	·
ribosomal protein L34 (RPL34) (low match)	1	L38941							
ribosomal protein L37 (RPL37)	5	D23661	+	+	+	+	+	+	high in barstead prostate
ribosomal protein L37a	4	X66699	+	+.	+	+	+	+	high in many libraries
ribosomal protein L38 (PRL38)	1 :	Z26876	+	+	. +	+	+	+	high in many libraries
ribosomal protein L4 (RPL4)	27	D23660	+	+	+	+	+	+	high in many libraries
HEOSONIEI protein E41 (RPL41)	. 4	∧F035844 ) }	.i. <del>\$</del>	+	+ ;	+	+	+	high in many libraries
ribosomal protein L5 (RPL5)	14	U14966	+	+	+	+	+	†	High in alveolar rhabdomyosarcoma
ribosomal protein L5 (RPL5) (low match)	1	U14966							
ribosomal protein L6 (RPL6)	7.	X69391	+	+	+	+	+	+	high in many libraries
ribosomal protein L7 (RPL7)	14	X52967	+	+	+	+	+	<u>i</u>	high in conorm
ribosomal protein L7a (RPL7A)	15	M36072	+	+	+	+	+	+	High in uterus, and seminoma
ribosomal protein L8 (RPL8)	5	Z28407	+ .	+	+	+	+	+	high in ovary
ribosomal protein L9 (RPL9)	10	U09953		+	+	+	+	+	
ribosomal protein S10 (RPS10)	5	U14972	+	+	+	+	+	+	high in many libraries
ribosomal protein S11 (RPS11)	4 -	X06617	+	+	+	+	+	+	high in many libraries
ribosomal protein S11 (RPS11) (low match)	1	AB007152		+	+		+	+	high in many libraries
ribosomal protein S12 (RPS12)	3	X53505	*			+			rugh in many libraties
ribosomal protein S13 (RPS13)	2	L01124		+	+ +	+	+	+	
ribosomal protein S14 (RPS14)	12	M13934	+	+	<u> </u>	+	+	ļ.	
ribosomal protein S15 (RPS15)	2	M32405	<del></del> +	+	+		+	Ļ	High in prostate
ribosomal protein S16 (RPS16)	3	M60854				+			invasive tumor
ribosomal protein S17 (RPS17)	2	M13932	+	+	+	+	+		high in many libraries
ribosomal protein S18	8	X69150		+	+	+	+	Ļ	high in many libraries
ribosomal protein S19 (RPS19)		M81757	+	+	+	+	+	+	high in many libranes
ribosomal protein S2 (RPS2)	4	X17206	<del></del>			Ľ	Ľ	Ļ	riigh in many libraries
RIBOSOMAL PROTEIN S2 (RPS4)	2	P15880		<u> </u>				<u> </u>	high in many libraries
(RPS20)	7	L06498	+	+	+	+	+	+	high in CD34+/CD38-
(RPS21)	3	L04483	•						hematopoietic cells and skin tumor
ribosomal protein S23 (RPS23)	3	D14530		+	+	+		+	
ribosomal protein S24 (RPS24)	7	M31520	+	+	+	+	+	*	high in uterus
ribosomal protein S25 (RPS25)	3	M64716	+	+	+	+	+	+	high in barstead prostate
ribosomal protein S26 (RPS26)	2	X69654		+	+	+	+	+	
ribosomal protein S27 ((metallopanstimulin 1) (RPS27)	5	U57847	+	+	+	+	+	+	

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ribosomal protein S28 (RPS28)	3	U58 <b>682</b>	+	+	+	+		+	
ribosomal protein S29 (RPS29)	2	U14973	+	+	+	+	+	+	
ribosomal protein S3 (RPS3)	9	X55715	+ .	+	+	+	+	+	high in many libraries
ribosomal protein S3 (RPS3) (low match)	1	U14990							
ribosomal protein S3A (RPS3A)	21	Z83334		+	+	+	+	+	high in many libraries
ribosomal protein S3A (RPS3A) (low score)	1	M77234	·						
ribosomal protein S4, X- linked (RPS4X)	9.	M58458	+	+	+	+		+	high in ovary and Synovial sarcoma
ribosomal protein S4, Y- linked (RPS4Y)	2	M58459	+	+	+	+	+	+	
ribosomal protein S5 (RPS5)	4	U14970	+	+	+	+	+	+	high in lymphoma
RIBOSOMAL PROTEIN S6 (PHOSPHOPROTEIN NP33)	1	P10660					;		
ribosomal protein S6 (RPS6)	22	M20020	+	+	+	+	+	+	
ribosomal protein S6 (RPS6) (non-exact 86%)	1	M77232							
ribosomal protein S6 kinase, 90kD, polypeptide 1 (RPS6KA1)	3	L07597	+	+	+	+		+	
ribosomal protein S6 kinase, 90kD, polypeptide 2 (RPS6KA2)	1	X85106							
ribosomal protein S7 (RPS7)	. 4	Z25749	-	+ -	+	+	+	+	
ribosomal protein S8 (RPS8)	6	X67247		+	+	+	+	+	
ribosomal protein S9 (RPS9)	8	U14971							colon tumor
ribosomal protein, large, P0 (RPLP0)	18	M17885	<b>T</b>		+			+	
nbosomal protein, large, P1 (RPLP1)		M17886	T	+	+		+		·
ribosomal RNA 18S (=M10098; K03432) (=polyadenylating sequence)	. 11	X03205		,	٠.		·		
ribosomal RNA 28S	2	M11167		1		-		<del>                                     </del>	
ribosomal RNA, 16S	1	U25123		<del>  </del>	<del> </del> -			$\vdash$	<b></b>
ring finger protein (non-	1	AJ001019		<del> </del>	<del> </del>				
ring finger protein 3 (RNF3)	1	AJ001019					<u> </u>	-	
ring finger protein 4 (RNF4)	3	AB000468		+	+	+		+	
ring zinc-finger protein (ZNF127-Xp)	3	U41315		+	+	+	_	+	
RNA (guanine-7-) methyltransferase (RNMT)	1	AB007858		+	+	+		+	
RNA binding motif protein 5 (RBM5)	4	U23946	+	+	+	+	$\vdash$	+	
		1					-	+	<del>                                     </del>
RNA binding motif, single stranded interacting protein 2 (RBMS2)	1	D28483	* .	+		+	·		
RNA binding motif, single stranded interacting protein	1	D28483 X98743	+	+	+	+		+	
RNA binding motif, single stranded interacting protein 2 (RBMS2) RNA helicase (putative), (Myc-regulated DEAD box			<b>+</b>		+				
RNA binding motif, single stranded interacting protein 2 (RBMS2) RNA helicase (putative), (Myc-regulated DEAD box protein) (MRD8) RNA helicase-related	1 - 1	X98743	+	+		+		+	
RNA binding motif, single stranded interacting protein 2 (RBMS2) RNA helicase (putative), (Myc-regulated DEAD box protein) (MRD8) RNA helicase-related protein RNA pol II largest subunit RNA polymerase I subunit (RPA40)	1 2 1	X98743 AF083255	•	+		+		+	
RNA binding motif, single stranded interacting protein 2 (RBMS2) RNA helicase (putative), (Myc-regulated DEAD box protein) (MRD8) RNA helicase-related protein RNA pol II largest subunit RNA polymerase I subunit	1 2	X98743 AF083255 X74872	+	+	+	+		+	

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S100 calcium-binding protein A10 (annexin II	2	M81457			+		+	+	
ligand, calpactin I, light polypeptide (p11)) (S100A10)							1		
S100 calcium-binding protein A11 (calgizzarin) (S100A11)	1	X80201		+	+	+		+	
\$100 calcium-binding protein A4 (calcium protein, calvasculin, metastasin,	3	M80563	В		+ .		.+		
murine placental homolog)(S100A4)					٠.		·		
S100 calcium-binding protein A8 (calgranulin A) (S100A8)	7	M21005			.+	<b> </b>		+	high in bone marrow
S100 calcium-binding protein A9 (calgranulin B) (S100A9)	14	X06233			+	+			high in invasive larynx squamous cell carcinoma
S164 gene	1	AF109907							Carcinoma
S-adenosylmethionine decarboxylase 1 (AMD1)	3	M88003	+	+	+	+		+	
SB classil histocompatibility antigen alpha-chain	5	M27487	+	+	+	+		+	
SC35-interacting protein 1 (SRRP129)	5	AF030234	+	+	+	+	+	+	
scaffold attachment factor B (SAFB)	1	U72355	+	+	+	+		+	
scaffold attachment factor B (SAFB) (non-exact 78%)	1	U72355				<u> </u>			
scRNA molecule, transcribed from Alu repeat	1	L13713							
SEC14 (S. cerevisiae)-like (SEC14L)	4	D67029		+	+	+		+	
SEC23-like protein B (SEC23B)	2	X97065	+	+	+	+		+	
SEC63 (SEC63)	1	AF100141		+	+				
secreted protein, acidic, cysteine-rich (osteonectin) (SPARC)	7	M25746		+	+	+	+	+	high in bone marrow stroma
secretory carrier membrane protein 1 (SCAMP1)		AF038966		+		+			
secretory camer membrane protein 2 (SCAMP2)	1	AF005038	+	+	+	+	+	+	
secretory carrier membrane protein 3 (SCAMP3)	1	AF005039							
secretory granule proteoglycan core (clones lambda-PG[6,7.8])	1	M33649							
selectin L (lymphocyte adhesion molecule 1) (SELL)	43	X17519	. +		,	+		+	
selectin P ligand (SELPLG)	13	U02297	+	+					
sema domain, immunogiobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain,	2	Ú60800 .		+		+		+	
(semaphorin) 4D (SEMA4D)						·			
Ser/Arg-related nuclear matrix protein (plenty of prolines 101-like) (SRM160)	4	AF048977		+	+	+	+	+	
serine palmitoyltransferase subunit I (SPTI)	1	Y08685		+	+	. +		+	
serine palmitoyltransferase, subunit II (LCB2)	1	AB011098	+	+	+	+		+	
									•

11000,40113									
serine protease	1	J02907	1	T .					
serine protease inhibitor,	- 1	U78095	+	+	+	+		+	
Kunitz type, 2 (SPINT2)				<u> </u>					
serine/threonine kinase 10 (STK10)	1	AB015718	+	+	+	+		+	
serine/threonine kinase 19 (STK19)	1	L26260	. +	+	+	+	•		
serine/threonine kinase 4 (STK4)	1	. U18297		+				+	
serine/threonine protein kinase KKIALRE	1	X66358		+	+	+		+	
(KKIALRE)	1	Y10256		-	+	+			
kinase (NIK)	_ '				Ľ	T.			
SERINE/THREONINE- PROTEIN KINASE RECEPTOR R3		P37023							
PRECURSOR (SKR3)		A F 0 7 0 F 0 4		<u> </u>	<u> </u>	_	<u> </u>		
serologically defined colon cancer antigen 16 (NY-CO- 16)	2	AF039694							
serologically defined colon cancer antigen 33 (SDCCAG33)		AF039698	В, Т	+	+		+		
serologically defined colon cancer antigen 33 (SDCCAG33) (low score)	1	AF039698	-						
serologically defined colon cancer antigen 33	<del></del>	AF039698							
(SDCCAG33) (low score) serum deprivation	1	AF085481.1	<u> </u>	<del> </del>	H	$\vdash$	-	-	
response (phosphatidylserine-binding protein) (SDPR) (=S67386)									
serum/glucocorticoid regulated kinase (SGK)	2	Y10032	+ .	+	+	+		+	
SET domain, bifurcated 1 (SETDB1)	2	D31891	+	+	+			+	
SH2 domain protein 1A,	1	AF073019	Т	<del> </del>				+	
Duncan's disease lymphoproliferative syndrome) (SH2D1A)									
SH3 binding protein (SAB)	. 2	AB005047	+	+	+	+	$\vdash$	+	<del></del>
SH3 domain protein 1B	4	U61167	+	<del> </del>		+	<u> </u>	+	
(SH3D1B) SH3BGR PROTEIN (=21-	1	P55822		1.	-	┢	$\vdash$	_	
GLUTAMIC ACID-RICH PROTEIN;21-GARP) (non- exact 82%aa)									
SH3-binding domain glutamic acid-rich protein	1	AF042081	+	+	+	+		+	
like (SH3BGRL) SH3-domain GRB2-like 1		U65999		<u> </u>		+		+	
(SH3GL1)	<u> </u>		. *					<u></u>	
SHC (Src homology 2 domain-containing) transforming protein 1	2	X68148		+	+	+		+	
(SHC1) siah binding protein 1 (SiahBP1)	2	U51586		+	+	+		+	
siah binding protein 1 (SiahBP1) (non-exact,	<del></del>	U51586				-			
69%) Sialomucin CD164 (CD164)	9	D14043		-		-	-	-	
sialophorin (gpL115, leukosialin, CD43) (SNP)	2	J04536							
sialyitransferase (STHM)	<del></del>	U14550		+	+	+	<del>                                     </del>	+	
sialyitransferase 1 (beta-	2	X17247	+	+	+	+	+	+	-

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sialyltransferase 4A (beta- galactosidase alpha-2,3- sialytransferase) (SIAT4A)	1	AF059321	В	+	+		+	+	
sialyltransferase 8 (alpha- 2, 8-polysialytransferase) D (SIAT8D)	1	L41680	·	+					
signal peptidase 25kDa subunit	1	L38950							
signal recognition particle 14kD (homologous Alu RNA-binding protein) (SRP14)	1	X73459	+	+	+	+	+	+	
signal recognition particle 54kD (SRP54)	1	U51920			+	+		+	·
signal recognition particle	2	U20998	1.4	+	+	+	+	+	. ,
signal recognition particle receptor ('docking protein') SRPR	5	X06272							
signal regulatory protein, beta, 1 (SIRP-BETA-1)	5	Y10376		+				+	
signal sequence receptor, alpha (translocon- associated protein alpha)	2	Z12830				.+		+	
(SSR1) signal sequence receptor,	2	X74104	+	+	+	+		+	
beta (translocon- associated protein beta) (SSR2)		·							
signal transducer and activator of transcription (STAT5A)	4 .	L41142	+	<b>+</b>	+	+	+	+	
signal transducer and activator of transcription 2, 113KD (STAT2)	1	U18671						+	
signal transducer and activator of transcription 3 (acute-phase response factor) (STAT3)	3	L29277							
signal transducer and activator of transcription 5A (STAT5A)	2	U48730	+	+.	+	+	+	+	
signal transducing adaptor molecule (SH3 domain and ITAM motif) 1 (STAM)	1	U43899					٠		
silencing mediator of retinoid and thyroid hormone action (SMRT)	1	U37146							
similar to beta-transducin superfamily proteins (SAZD)	1	U02609	+	+	+			+	
similar to S. cerevisiae SSM4 (TEB4)	1	AB011169		+	+	+		+	
similar to yeast pre-mRNA splicing factors, Prp1/Zer1 and Prp6	1,	AF026031	+	<b>T</b>	*	+		7	
SIT protein	1 .	AJ010059.1	ļ	<u> </u>			_		
Sjogren syndrome antigen A1 (52kD, ribonucleoprotein	2	M62800					+		.
autoantigen SS-A/Ro)									,
Sjogren syndrome antigen A1 (52kD, ribonucleoprotein	1	M62800	·						
autoantigen SS-A/Ro) (SSA1) (non-exact 63%) (match to zinc finger)									
SKAP55 homologue (SKAP-HOM)	1	AJ004886		+	+	+		+	
skb1 (S. pombe) homolog (SKB1)	2	AF015913	+	+	+	+		+	
N									

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skeletal muscle abundant protein	1	X87613	+	+	+	+		+	
SMA3 (SMA3)	1	X83300	+	+		+	_	+	
small acidic protein	3	U51678	+	+	+	+		+	
small EDRK-rich factor 2 (SERF2)	2	Y10351	+	+	+	+	+	+	high in fetal lung
small inducible cytokine A5 (RANTES) (SCYA5)	2	M21121	+	+	+	+	+	+	high in many libraries
small inducible cytokine subfamily C, member 2 (SCYC2)	1	D63789							
small nuclear ribonucleoprotein polypeptide B" (SNRPB2)	2	M15841		+	+	+		+	
small nuclear ribonucleoprotein polypeptide N (SNRPN)	4	J04615	+ ()	+	+	+	+	+	
small nuclear ribonucleoprotein polypeptides B and B1 (SNRPB)	2	J04564	+	+	+	+	, ,	+	
small nuclear RNA activating complex, polypeptide 5, 19kD (SNAPC5)	1	AF093593	*	+	+	+		+	
smallest subunit of ubiquinol-cytochrome c reductase	, 1	D55636	+	+	+	+	+	+	high in fetal lung
SMC (mouse) homolog, X chromosome (SMCX)	1	L25270	+	+	+	+	-	+.	
SMT3B protein (2)	2	X99585	. +	+	+	+	+	+	
SNARE protein (YKT6) (low match)	. 1	U95735			:				
SNC19	1	U20428				<del>                                     </del>		十一	
SNC73 protein (SNC73)	2	J00220	+	+	_	+	+	+	high in many libraries
solute carrier family 1	2 .	U53347		+		+		+	
(neutral amino acid transporter), member 5 (SLC1A5)	• •								
Solute carrier family 11 (proton-coupled divalent metal ion transporters), member 1 (SLC11A1)	7	D50403	+		٠-				
solute carrier family 17 (sodium phosphate), member 3 (SLC17A3)	1	U90545				+			
solute carrier family 19 (folate transporter), member 1 (SLC19A1)	1	U17566	B, lymphoma	+			+		
solute carrier family 2 (facilitated glucose transporter), member 1 (SLC2A1)	1	K03195	+	+	+	+	+	+	
solute carrier family 23 (nucleobase transporters), member 2 (SLC23A2)	3	D87075		+	+	+		+	
solute carner family 25 (mitochondrial carrier; oxoglutarate carrier), member 11 (SLC25A11)	<del>- 1</del>	AF070548	В, Т	+	+		+	+	
solute carrier family 31 (copper transporters), member 2 (SLC31A2)	3	U83461		+		+			
solute carrier family 4, anion exchanger, member 2 (erythrocyte membrane protein band 3-like 1)	1	X62137		+	+			*	
	•						l	Į.	
(SLC4A2) solute carrier family 4, sodium bicarbonate cotransporter, member 8	1	AB018282	! 	+					

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solute carrier family 7 (cationic amino acid transporter, y+ system),	2	M80244	1, W	+	+		+		
member 5 (SLC7A5) solute carrier family 7	3	D87432	+	+	+	├	├	+	<u> </u>
(cationic amino acid transporter, v+ system).		557402			٠.				
member 6 (SLC7A6) solute carrier family 7 (cationic amino acid	1	D87432					-	-	
transporter, y+ system), member 6 (SLC7A6) (non- exact 77%)									
solute carrier family 9	1	AF030409		+	+	+		+	-
(sodium/hydrogen exchanger), isoform 6 I(SLC9A6)	; ·	}							
somatic cytochrome c	2	M22877							
SON DNA binding protein (SON)	2	X63753		+	+	+		+	
son of sevenless (Drosophila) homolog 1 (SOS1)	1	L13858	+	+	·	+			
sorcin (SRI)	1	M32886	`		·				
sortilin 1 (SORT1)	2	X98248	:	+		+	-	+	
sortilin-related receptor, L(DLR class) A repeats- containing (SORL1)	6	Y08110							
sorting nexin 1 (SNX1)	. 3	U53225	+	+	+	+		+	<u> </u>
sorting nexin 2 (SNX2)	2	AF043453			<del> </del>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	
sorting nexin 6 (SNX6) (=U83194.1 TRAF4- associated factor 2)	. 1	AF121856.1							
Sp3 transcription factor (SP3)	1	X68560	+	+	+	+		+	
Sp3 transcription factor (SP3)	4 .	M97191	+	+	+	+		+	
special AT-rich sequence binding protein 1 (binds to nuclear matrix/scaffold- associating DNA's) (SATB1)	1	M97287							
speckle-type POZ protein (SPOP)	4	AJ000644							
speckle-type POZ protein (SPOP) (non-exact)	1	AJ000644							
spectrin SH3 domain binding protein 1 (SSH3BP1)	6	U87166	+	+	+	+			
Spectrin, alpha, non- erythrocytic 1 (alpha-fodrin) (SPTAN1)	2	J05243		+	+			+	
spermidine/spermine N1- acetyltransferase (SAT)	11	M55580							
spermidine/spermine N1- acetyttransferase (SAT) (non-exact, 84%)	1	U40369							
spermine synthase (SMS)	1	AD001528	+	+	+	+		+	
SPF31 (SPF31)	1	AF083190	+	+	+	+		+	
sphingomyelin phosphodiesterase 1, acid lysosomal (acid sphingomyelinase)	1	X52679		+	+		+		
(SMPD1) SPINDLIN HOMOLOG	1	Q99865		-		-	H		
(PROTEIN DXF34) spinocerebellar ataxia 1 (olivopontocerebellar ataxia	3	X79204	В	+		<del>                                     </del>	+	-	
1, autosomal dominant, lataxin 1) (SCA1)									

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spinocerebellar ataxia 2 (olivopontocerebellar ataxia	. 1	U70323	В				+		
2, autosomal dominant, ataxin 2) (SCA2)	•								
spinocerebellar ataxia 7	2	AJ000517		+			1	<u> </u>	
(olivopontocerebellar atrophy with retinal									
degeneration) (SCA7)		11121111		<u> </u>		ļ		<u></u>	
spliceosome associated protein (SAP 145)	. 3	U41371		. +	+	+	+	+	
splicing factor (CC1.3) (CC1.3)	2	L10910	+	+	+	+	+	+	
splicing factor SRp40-1 (SRp40)	. 7	U30826	+	+	+	+	+	+	
splicing factor, arginine/serine-rich 11 (SFRS11)	3	M74002	В	+	+		+	+	
splicing factor, arginine/serine-rich 7 (35kD) (SFRS7)	4	L41887		+	. +	+		+	
Src-like adapter protein (non-exact, 76%aa)	1	U30473					7		
Src-like-adapter (SLA)	6	D89077	-	+	+	+		+	
Src-like-adapter (SLA) (low match)	1	D89077						- :	
Src-like-adapter (SLA) (low score)	1	U44403							
stannin (SNN)	2	AF030196	+	+	+	+		+	
STAT induced STAT inhibitor 3 (SSI-3)	1	AB004904				+			
STE20-like kinase 3 (MST-3)	2	AF024636	+	+	+ .	+		+	~
step II splicing factor SLU7 (SLU7)	1	AF101074		+		+	+	+	
steroid sulfatase	1	M17591							
steroid sulfatase (microsomal), arylsulfatase C, isozyme S (STS)	1	J04964	-	+	+	.+			
sterol carrier protein 2 (SCP2)	1	M55421		+	+	+	+	+	
sterol O-acyltransferase (acyl-Coenzyme A: cholesterol acyltransferase) 1 (SOAT1)		AF059202					+		
stimulated trans-acting factor (50 kDa) (STAF50)	- 6	X82200	+	+		+			
Striatin, calmodulin-binding protein (STRN) (low match	1	U17989							· .
71%aa) Stromal antigen 2 (STAG2)	2	Z75331	-	·	+	+	+	+	
		1150100		ļ.,			•		<del>,,</del>
molecule 1 (STIM1) structure specific	3	U52426	T			_		+	
recognition protein 1 (SSRP1)	•	M86737		+	+	+		_	
succinate dehydrogenase complex, subunit A, flavoprotein (Fp) (SDHA)	5	L21936			+	٠			
succinate dehydrogenase complex, subunit B, iron	1	U17248	+	+	+	+	,	+	
sulfur (Ip) (SDHB) succinate dehydrogenase complex, subunit C,	1	U57877	+	+	+	+	· ·	+	·
integral membrane protein, 15kD (SDHC)									
succinate dehydrogenase complex, subunit D, Integral membrane protein (SDHD)	3	AB006202		+	+		+		
succinate-CoA ligase, GDP-forming, beta subunit (SUCLG2)	1	AF058954		+	+	+	+	+	
1									

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succinyl CoA synthetase	1	Z68204							
sudD (suppressor of	2	AF013591		+		<del>                                     </del>	+	+	
bimD6, Aspergillus	_	1 0		1	l .	1	1		
nidulans) homolog (SUDD)	ł			1		l	1		ł
sulfotransferase family 1A,	1	L19999		+		1	+	+	<del></del>
phenol-preferring, member	•		ļ			ł	1		
1 (SULT1A1)	·		İ	1		1	l ·		1
sulfotransferase family 1A,	1	U37686		<b> </b>		1			T
phenol-preferring, member			1		1	].		1	
3 (SULT1A3) (non-exact		:			1			l .	
67%)									
superoxide dismutase 1,	4	X02317		+	+		+	+	
soluble (armyotrophic lateral	· .				l ·	ł			i '
sclerosis 1 (adult)) (SOD1)		1		1	İ		1		·
superoxide dismutase 2,	5	Y00985		+	+	+	+	+	
Imitochandrial (SOD2)				ļ , ,	<b>.</b>			}. 1	
supervillin (SVIL)	2	AF051851		1	+	+		+	
suppression of	2	U15131	<del> </del>	+	<del> </del>	+		+	
tumorigenicity 5 (ST5)	-	0.5.5.		] .	}	Ι'	· .	l '	·
suppression of	1	U15779	<del> </del>	<del> </del>	-	<del> </del>	-	<del> </del>	
tumorigenicity 5 (ST5)		013773		1	ŀ			l	
(non-exact 82%)		}		1	١.				,
suppressor of K+ transport	1	AF038960	<del> </del>	+ -	+	+	$\vdash$	<del></del>	
defect 1 (SKD1)		000000			`	Ι΄.	1		
suppressor of Ty	1	AF064804	+	+	+	+	╁─	+	
(S.cerevisiae) 3 homolog	,	557667	1	1		'	· ·		
(SUPT3H)		1		1	l .	1 2	1	!	
suppressor of Ty	2	U38817	+ .	+	+	+		+	<del></del>
(S.cerevisiae) 4 homolog 1		1				l .	1		
(SUPT4H1)		1		1	1	1	l	l	
suppressor of Ty	2	U56402		+	$\vdash$	t	$\vdash$	+	
(S.cerevisiae) 5 homolog	,			l	l	ł	1.	•	
(SUPT5H)		1		!	1	1	Ī		
suppressor of Ty	2	U46691	+	+	+	+	+	+	
(S.cerevisiae) 6 homolog			]		l	l. :	1		
(SUPT6H)			1 .		l .	1			
suppressor of variegation	1	AF019968	1	+	+	+			
3-9 (Drosophila) homolog 1		ì		ľ					
(SUV39H1)					L				
survival of motor neuron 1,	1	U18423							
telomeric (SMN1)		<u> </u>		l		1			
SWI/SNF related, matrix	1	M88163			+	+		+	
associated, actin			i '	ļ l		1			
dependent regulator of			· '	·	١.			1	
chromatin, subfamily a,			i						
member 1 (SMARCA1)		}	İ						
(non-exact, 75%)		- BAGZEE				-		lacksquare	
SWI/SNF related, matrix	2	D26155	i	+		1			
associated, actin			1						,
dependent regulator of	•		1 .	1				·	
chromatin, subfamily a,		Î	1	1					·
member 2 (SMARCA2) SWI/SNF related, matrix	· .	Dagare -		$\vdash$	ـــــ	<b>!</b>	لبل	لببا	
associated, actin	ı	D26156	+	+	+	+	+	+	
	•		ŀ	1	٠.	1			
dependent regulator of chromatin, subfamily a,									
member 4 (SMARCA4)			1						
SWI/SNF related, matrix	4	U66616	+	+	+	+	+	+	· · · · · · · · · · · · · · · · · · ·
associated, actin	7	0000.10	1 -	🗂	1	+	🕶		
dependent regulator of	•		· ·				-		٠
chromatin, subfamily c.			1	]					
member 2 (SMARCC2)	!				i				
SWI/SNF related, matrix	2	AF035262	B, W	+	+	$\vdash$	+	+	<del></del>
associated, actin			_, ,,			.			
dependent regulator of									
chromatin, subfamily e,		٠						,	
member 1 (SMARCE1)				,					•
synaptobrevin-like 1	1	X95803		+	+	+		+	
(SYBL1)	•				-				
synaptosomal-associated	2	AJ011915		+	+	+		+	<del></del>
protein, 23kD (SNAP23)	-								
syndecan binding protein	15	AF006636	+	+	+	+		+	
(syntenin) (SDCBP)	-						-		
<del></del>		·							

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synovial sarcoma, translocated to X	2	X79201		+					
chromosome (SSXT) syntaxin 16	1	AF038897		-			-		
syntaxin 3A (STX3A)	2	U32315	· <u></u>	+		+		+	
	1	AJ002078.1							
syntaxin 6 (STX6)	-		Ļ <u>.                                    </u>						
SYNTAXIN BINDING PROTEIN 3 (UNC-18 HOMOLOG 3) (UNC-18C)	1	000186							
syntaxin-16C	1	AF008937							
SYT interacting protein (SIP)	1	AF080561	·	+	+	+		+	
T cell activation, increased late expression (TACTILE)	4	M88282				+	•		
T cell receptor V alpha gene segment V-alpha-7 (clone IGRa11)	2	X58744			·				
T cell receptor V alpha gene segment V-alpha-w27	1	X58740				·			
T3 receptor-associating cofactor-1	5	S83390	+	+	+	+	+,	+	
tafazzin (cardiomyopathy, dilated 3A (X-linked); endocardial fibroelastosis	1	X92763	+	+		+		+	
2; Barth syndrome) (TAZ)	1	U80191							
TAFII100 protein (non- exact 53%)		AF082556		+		+		-	
lankyrase, TRF1- interacting ankyrin-related ADP-ribose polymerase (TNKS)		AFU82556		-	+	•		Ť	
TAP1, TAP2, LMP2, LMP7 and DOB	1	X66401							
TAR DNA-binding protein- 43	6	U23731	+	+	+	+		+	
Tat interactive protein (60kD) (TIP60)	2	U40989	+.	+	+	*		+	
TATA box binding protein (TBP)-associated factor, RNA polymerase II, C1, 130kD (TAF2C1) (non-exact, 55%)		O00268							
TATA box binding protein (TBP)-associated factor, RNA polymerase II, F, 55kD (TAF2F)	4	X97999		+	+	+	+	+	
TATA box binding protein (TBP)-associated factor, RNA polymerase II, G, 32kD (TAF2G)	2	U21858		+	+	+	+	+	
TATA box binding protein (TBP)-associated factor, RNA polymerase II, I, 28kD (TAF2I)	1	D63705	+	+	+	+		+	
Tax1 (human T-cell leukemia virus type I) binding protein 1 (TAX1BP1)		U33821		+	+	+	*	+	
T-box 2 (TBX2) (non-exact 77%)	1	U28049			+	+		+	
TBP-associated factor 172 (TAF-172)	1	AJ001017		+		+		+	
T-cell death-associated gene 8 (TDAG8)	. 1	U95218				1			
T-cell leukemia/lymphoma 1A (TCL1A)	1	X82240	+						
T-cell leukémia/lymphoma 1A (TCL1A) (low match)	1	X82240							
T-cell receptor (delta D2- J1-region) (clone K3B)	1	M22197							

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T-cell receptor (V beta 5.1, J beta 1.5, C beta 1) (low match)	1	М97705						·	
T-cell receptor alpha delta (=M94081)	2	AE000662	- :						
T-cell receptor alpha enhancer-binding protein, short form (=X58636	1	B39625			٠.				
Mouse LEF1 lymphoid enhancer binding factor 1 (=D16503))									
T-cell receptor delta gene D2-J1-region, clone K3B	1	M22197							
T-cell receptor germline beta chain gene V-region (V) V-beta-MT1-1	1	M11955						, .	
T-cell receptor germline beta-chain gene J2.1 exon	1	M14159	4						only in blood
T-cell receptor germline delta-chain D-J region	2	M22152					•		
T-cell receptor interacting molecule (TRIM) protein	2	AJ224878						+	·
T-cell receptor rearranged delta-chain, V-region (V-delta 3-J)	1	M21784							
T-cell receptor, alpha (V,D,J,C) (TCRA)	3	AE000660	+	+	+	+		+	
T-cell receptor, beta cluster (TCRB)	3	L34740	+	+	+	+	+	+	high in pancreas
T-cell receptor, delta (V,D,J,C) (TCRD)	2	X73617			+	+		+	
T-cell, immune regulator 1 (TCIRG1)	3	U45285						·	only found in tumor
TCF-1 mRNA for T cell factor 1	. 1	X59870							
TCF-1 mRNA for T cell factor 1 (splice form B) (low match)	1	X59870							
T-COMPLEX PROTEIN 1, ETA SUBUNIT (TCP-1- ETA) (CCT-ETA) (HIV-1 NEF INTERACTING	1 .	Q99832					·		
PROTEIN) T-COMPLEX PROTEIN 1, THETA SUBUNIT (TCP-1-	1	P50990					·		
THETA) (CCT-THETA) (KIAA0002) TCR eta = T cell	1	S94421		ļ		_		ļ_	
receptor(eta-exon) TCR V Beta 13.2	<del>1</del>	X75419		_		<u> </u>		-	
TERA		AC004472					-	-	:
testis enhanced gene transcript (TEGT)	33	X75861	+	+	+	+	+	+	
tetracycline transporter-like protein (TETRAN)	2	L11669		+	+.	+		+	
tetratricopeptide repeat domain 1 (TTC1)	1	U46570	+	+	+	+		+	
tetratricopeptide repeat domain 2 (TTC2)	1.	U46571	·	+		+		+	
tetratricopeptide repeat domain 3 (TTC3)	1	D84296	+	+	+	+	Ť	+	
TGFB1-induced anti- apoptotic factor 1 (TIAF1)	1	D86970	+	+	+	+	Π	+	·
thioredoxin reductase 1 (TXNRD1)	. 3	S79851		+	+	+		+	
THIOREDOXIN- DEPENDENT PEROXIDE REDUCTASE	1	P30048							
PRECURSOR, mitochondrial (ANTI- OXIDANT PROTEIN 1) (AOP-1)									

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threonyl-tRNA synthetase (TARS)	. 1	M63180		+	+	+		+	
thrombin inhibitor	1	Z22658							
thrombospondin 1 (THBS1)	2.	X04665		+	. +	+	+	+	
thromboxane A synthase 1 (platelet, cytochrome P450, subfamily V) (TBXAZ1)	1 :	M80647		+		+	+	+	
thymidine kinase 2, mitochondrial (TK2)	2	X76104		+	+		+		
thymidylate kinase (CDC8)	1	L16991		+	+	+		+	
thymine-DNA glycosylase (TDG)	2	U51166	+	+	+	+		+	
Thymosin, beta 10 (TMSB10)	2	M20259	+	+	+	+	+	+	
thymosin, beta 4, X chromosome (TMSB4X)	29	M17733		+	+	+		+	
thyroid autoantigen 70kD (Ku antigen) (G22P1)	7	J04611							
thyroid hormone receptor coactivating protein (SMAP)	1	AF016270		+		+		*	
thyroid hormone receptor interactor 7 (TRIP7)	2	L40357		+	+	+		+	
thyroid hormone receptor interactor 8r (TRIP8)	4	L40411		+					
thyroid hormone receptor- associated protein, 230 kDa subunit (TRAP230)	1	D83783							
thyroid receptor interacting protein 15 (TRIP15)	2	L40388	+	+	+	+			
TI-227H	1	D50525				1	_	-	
TIA1 cytotoxic granule- associated RNA-binding protein (TIA1)	1	M77142		+	+	.+ .		+	
tissue inhibitor of metalloproteinase 1 (erythroid potentiating activity, collagenase		X02598	+	+	+	. *	+	+	
inhibitor) (TIMP1) tissue inhibitor of metalloproteinase 2	1	M32304	+	+	+	+	-	+	high in placenta
(TIMP2)	1	U58766	+	+	+	+	-	+	
transplantation antigen P35B (TSTA3)	-								
titin (TTN)	1	X64697	+	+	+	+		+	high in muscle
TNF receptor-associated factor 2 (TRAF2)	1	U12597		+	+	+		+	•
TNF receptor-associated factor 3 (TRAF3)	1	AF110908.1		+					
TNF receptor-associated factor 6 (TRAF6) (low match)	1	U78798		·					
toll-like receptor 1 (TLR1)	1	U88540				+			
toll-like receptor 2 (TLR2)	1	U88 <b>878</b>	+	+	<u> </u>	+		+	
toll-like receptor 4 (TLR4)	1	U88880		+			+		
tolHike receptor 5 (TILR5)	1	AF051151		+		+			
topoisomerase (DNA) I (TOP1)	1	.J03250		+	+				
topoisomerase (DNA) II beta (180kD) (TOP2B)	2	X68060	+	+			<u> </u>	+	
topoisomerase (DNA) III beta (TOP3B)	3	D87012	+	<u> </u>	<u> </u>	_	Ŀ		
TR3beta	1	D85245		+	<u> </u>	ــــــــــــــــــــــــــــــــــــــ	<u> </u>	ļ.,	
TRAF family member- associated NF-kB activator (TANK)	-3	U63830	+	+	+	+	*	+	
TRANSALDOLASE	1	P37837				<u> </u>	<u></u>	<u> </u>	
transaldolase 1 (TALDO1)	4	L19437		+	+	+	+	+	

·	·	·							
transaldolase-related protein	1	AF010398					,	·	
transcobalamin II (TCII)	1	AF047576							
transcription elongation factor B (SIII), polypeptide 1-like (TCEB1L)	2	Z47087	+	+	+	+ '		+	
transcription elongation factor B (SIII), polypeptide 3 (110kD, elongin A) (TCEB3)	1	L47345	+	+	+	+	+	+	
transcription factor 12 (HTF4, helix-loop-helix transcription factors 4) (TCF12)	7	M83233	+	+	+	+	·	+	
transcription factor 17	2	. D89928		+	. 1 -9	+			1
transcription factor 4 (TCR4)	2	X52079		+	+	+		+	
transcription factor 6-like 1 (mitochondrial transcription factor 1-like) (TCF6L1)	2	M62810	+	+	+	+			
transcription factor 7-like 2 (T-cell specific, HMG-box) (TCF7L2)	1	Y11306		+	•+	+		+	
transcription factor binding to IGHM enhancer 3 (TFE3)	1	X96717	+	+	+	+		+	
transcription factor IL-4 Stat	7.	AF067575	+	+	+	+	+	+	
transcription factor IL-4 Stat (low match)	. 1	U16031							
transcription factor ISGF-3 (=M97936)	4	М97935							
transcription factor REST	1	A56138							,
transcription factor TFIID	1	Z22828							·
transcriptional adaptor 2 (ADA2, yeast, homolog)- like (TADA2L)	1	AF064094							
transcriptional intermediary factor 1 (TIF1) (non-exact 72%)	1	AF009353							
transducin (beta)-like 1. (TBL1)	1	Y12781	+ .	+	+	+		+	
transducin-like enhancer of split 3, homolog of Drosophila E(sp1) (TLE3)	1	M99438	. +	+					
Transformation/transcription domain-associated protein (TRRAP)	1	AF076974	+	+	+	+		+	
transformation-sensitive, similar to Saccharomyces cerevisiae STI1 (STI1L)	2	M86752		+	+	+		1	
transforming growth factor beta-activated kinase 1 (TAK1) (non-exact 78%)	1	AB009356							
transforming growth factor beta-stimulated protein TSC-22 (TSC22)	3	AJ222700	+	+	+	+		1	
transforming growth factor, beta receptor III (betaglycan, 300kD) (TGFBR3)	1	L07594		+	+	+		+	
transforming growth factor, beta-induced, 68kD (TGFBI)	2	4507466	+	+	+	+	+	+	
TRANSFORMING GROWTH FACTOR-BETA INDUCED PROTEIN IG-H3 PRECURSOR (BETA IG-H3)	2	Q15582							
transforming, acidic coiled- coil containing protein 1 (TACC1) (non-exact 70%)	1	AF049910							·

WC 00/40/49									
transgelin 2 (TAGLN2)	14	D21261	+	+	+	+	+	+	
transgelin 2 (TAGLN2) (non-exact)	1 .	D21261							
trans-Golgi network protein (46, 48, 51kD isoforms) (TGN51)	.2	AF029316		+		+			
transient receptor potential channel 1 (TRPC1)	. 1	X89066		+	+	+		+	
transketolase (Wernicke- Korsakoff syndrome) (TKT)	7	L12711		+	+.	+		+	
translation factor sui1 homolog (GC20)	1	AF064607		+	+	+	+	+	
translin (TSN)	3	X78627	+	+	+	+		+	
translin-associated factor X (TSNAX)	1	X95073		+	+	+		+	
transmembrane glycoprotein (A33)	1	U79725							
transmembrane protein (63kD), endoplasmic	1	X69910	+ .	+	+	+		+	
reticulum/Golgi intermediate compartment (P63)	•						ŧ		
transmembrane protein 1 (TMEM2)	1	AB001523		+		+		+	·
TRANSMEMBRANE PROTEIN SEX PRECURSOR (non-exact 65%)	1	P51805							
transmembrane trafficking protein (TMP21)	2	X97442	+	+	+	+	+	+	
transporter 1, ABC (ATP binding cassette) (TAP1)	3	L21208	+	+	+	+		+	
Treacher Collins- Franceschetti syndrome 1 (TCOF1)	2	U40847	+	+	+	+		+	high in many libraries
triosephosphate isomerase	2	X69723	+	+	+	1	+	+.	
tropomyosin	2	X04201		+	+	+		+	
tropomyosin 4 (TPM4)	2	X05276	+ .	+	+	+		+	
TRPM-2 protein	2 .	M63376	,						
tryptase I precursor (non- exact 64%)(=P20231)	1	A35863							
tryptophan rich basic protein (WRB)	1	Y12478							
tryptophanyl-tRNA synthetase (WARS)	1	X59892	+	+	+	+	+	+	
Ts translation elongation factor, mitochondrial (TSFM)	1	L37936	+	+		+		+	
ttopoisomerase (DNA) II beta (180kD)	1 .	Z15115		+	+			+	
Tu translation elongation factor, mitochondrial (TUFM)	4	L38995							
tuberous scierosis 1 (TSC1)	1	AF013168		+	+	+	Γ	+	
tuberous scierosis 2 (TSC2)	1	X75621		+	+	+		+	
tubulin, alpha 1 (testis specific) (TUBA1)	1	X06956		+		ŀ	+		
tubulin, alpha, ubiquitous (K-ALPHA-1)	11	K00558	+	+	+	+.	+	+	high in many libraries
tubulin, alpha, ubiquitous (K-ALPHA-1) (low match)	1	K00558							
tubulin-specific chaperone c (TBCC)	1	U61234		+	+	+		+	
tumor necrosis factor (ligand) superfamily, member 10 (TNFSF10)	7	U37518		+.	+	+		+	

WU 00/40/49		,						- '	CITCA00700003
tumor necrosis factor (ligand) superfamily, member 13 (TNFSF13)	1	AF046 <b>888</b>	·, +	+		+		+	
tumor necrosis factor (ligand) superfamily, member 14 (TNFSF14)	1	AF036581							
lumor necrosis factor (ligand) superfamily, member 6 (TNFSF6)	1	D38122	+						Found only in library 386: T-cell lymphoma
tumor necrosis factor (ligand) superfamily, member 8 (TNFSF8)	1	L09753	B only						
tumor necrosis factor alpha-inducible cellular protein containing leucine	1	AF061034		+	+	+		+	
zipper domains (FIP2) Tumor necrosis factor receptor superfamily	2	M63928		+		_	+		
member 7 (TNFRSF7) tumor necrosis factor receptor superfamily,	1	AF016266		+	+	+	+	+	
member 10b (TNFRSF10B) tumor necrosis factor receptor superfamily,	3	AF012629		-	<u>.</u>	<u> </u>	+	_	
member 10c, decoy without an intracellular domain (TNFRSF10C)								ļ.  -	
tumor necrosis factor receptor superfamily, member 10d, decoy with	1.	AF023849							found only in prostate
truncated death domain (TNFRSF10D) (non-exact 84%)									
tumor necrosis factor receptor superfamily, member 12 (translocating	. 1	U94508	+	+	+	+		+	
chain-association membrane protein) (TNFRSF12)									
tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator) (TNFRSF14)	1	U70321	•	+	+	+		+	
tumor necrosis factor receptor superfamily, member 1B (TNFRSF1B)	5	U52165	+	+	+.	+		+	
tumor necrosis factor receptor superfamily, member 6 (TNFRSF6)		X63717	8, W					+	
tumor necrosis factor receptor superfamily, member 7 (TNFRSF7)	1	M63928	+	+					
tumor necrosis factor, alpha-induced protein 2 (TNFAIP2)	8	M92357		+	+		+		
tumor necrosis factor, alpha-induced protein 3 (TNFAIP3)	2	M59465							
tumor protein 53-binding protein, 1 (TP53BP1)	1	AF078776		+	+	+	L	+	
tumor protein p53 (Li- Fraumeni syndrome) (TP53)		M14695	+	+.				+	
Tumor protein p53-binding protein (TP53BPL) tumor protein,	35	U82939 X16064	+			+		+	
translationally-controlled 1 (TPT1)						_	_		
tumor protein, translationally-controlled 1 (TPT1) (low score)	1	X16064					<u> </u>	<u> </u>	
tumor rejection antigen (gp96) 1 (TRA1)	9	X15187	+	1 *	*	+	+	*	

PCT/CA00/00005

<b>VVO</b> 00/40/42			•						
tumorous imaginal discs (Drosophila) homolog (TID1)	2	AF061749		+		·			
TXK tyrosine kinase (TXK)	2	L27071	1						
type II integral membrane protein (NKG2-E)	1	AJ001685.					+		found only in fetal liver/spleen
TYRO protein tyrosine kinase binding protein (TYROBP)	3	AF019562			+				
tyrosine 3- monooxygenase/tryptopha	. 1	X57346	+	+	+	+		+	high in ecnorm
n 5-monooxygenase activation protein, beta			· .			٠.			
polypeptide (YWHAB) tyrosine 3-	1	M86400							
monooxygenase/tryptopha of 5-monooxygenase activation protein, zeta polypeptide (				·					
YWHAZ) tyrosine 3-	<del></del>	M86400	-					-	
monooxygenase/tryptopha n 5-monooxygenase activation protein, zeta					`				
polypeptide (YWHAZ) Tyrosine kinase 2 (TYK2)	3	X54637		+	+	+	ļ	+	
TYROSINE-PROTEIN	<del>- 2</del>	P43403	<b> </b>	$\vdash$		Ė	-	Ė	<del>                                     </del>
KINASE ZAP-70 (70 KD ZETA-ASSOCIATED PROTEIN) (SYK-RELATED TYROSINE KINASE)		1 40400							
tyrosyl-tRNA synthetase	1	U89436	+	+	+	+		+	
U1 small nuclear RNA	- 1	M14387	<del> </del>			-	$\vdash$	╁	
U19H snoRNA (=M63485	1	AJ224166	<del> </del>				1	T	
R.norvegicus matrin 3)				<u> </u>		<u> </u>	<u> </u>	Ļ	
U2(RNU2) small nuclear RNA auxillary factor 1 (non-standard symbol)	1	M96982		+	+	*		+	
(U2AF1) U22 snoRNA host gene	· 2	U40580		<u> </u>		<u> </u>	ــــ		
(UHG)	_		<u> </u>	+	+	+	<u> </u>	+	
U4/U6-associated RNA splicing factor (HPRP3P)	4	AF016370		<u> </u>	Τ	Ľ	Ŀ	Ľ	
U49 small nuclear RNA	1	X96649		<u> </u>		<u> </u>	<u> </u>		
U5 snRNP-specific protein (220 kD), ortholog of S. cerevisiae Prp8p (PRP8)	1	AB007510	+	+	+	+		+	· · · · ·
U5 snRNP-specific protein, 116 kD (U5-116KD)	4	D21163	+	+	+	+		+	
U5 snRNP-specific protein, 200 kDa (DEXH RNA helicase family) (U5-200- KD)	3	270200							
Uba80 mRNA for ubiquitin	4	S79 <b>522</b>	+	+	+	+	+	+	high in ovary
ubiquinol-cytochrome c reductase (6.4kD) subunit (UQCR)	<u>†</u>	D55636	+	+	+	+	+	+	high in fetal lung
ÙBIQUÍNOL-	1	P47985				T	$\vdash$	$\vdash$	
CYTOCHROME C REDUCTASE IRON- SULFUR SUBUNIT									
PRECURSOR (RIESKE IRON-SULFUR PROTEIN) (RISP) (low match)							<u> </u>	_	
ubiquitin A-52 residue ribosomal protein fusion product 1 (UBA52)	2	X56999	٠.						
ubiquitin activating enzyme E1-like protein (GSA7)	1	AF094516		+	+			+	
ubiquitin C (UBC)	. 5	AB009010		+	+	+	+	+	high in ovary

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ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) (UCHL3)	1	M30496	+	+	+	+		+	
ubiquitin fusion degradation 1-like (UFD1L)	1	U64444	+	+	+	+.		+	
ubiquitin protein ligase E3A (human papilloma virus E6-	1	U844 <b>04</b>	В	+	+			+	•
associated protein, Angelman syndrome)			-						
(UBE3A) ubiquitin specific protease 10 (USP10)	4	D80012	+	+	+	+		+	
ubiquitin specific protease 11 (USP11)	1	U44839	+	.+	+	+	+	+	·
ubiquitin specific protease 15 (USP15)	3	AB011101	+	+.	+ , 4	<b>+</b>		+	
ubiquitin specific protease 19 (USP19)	1	AB020698 AF017305	В	+	·		+		
ubiquitin specific protease 4 (proto-oncogene) (USP4) ubiquitin specific protease	1	AF017305	В	T			_	_	
4 (proto-oncogene) (USP4)	•	A 0 17 300			•		,		
ubiquitin specific protease 7 (herpes virus-associated) (USP7)	1	Z72499		+	+	+		+	
ubiquitin specific protease 8 (USP8)	5	D29956		+	. +	+		+	
UBIQUITIN-ACTIVATING ENZYME E1 (A1S9 PROTEIN) (56%)	. 1	P22314							
ubiquitin-activating enzyme E1 (A1S9T and BN75 temperature sensitivity complementing) (UBE1)	: :	M58028	+	+	+	+		+	
ubiquitin-activating enzyme E1. like (UBE1L)	.1	L34170	+	+		+		+	
UBIQUITIN-BINDING PROTEIN P62; phosphotyrosine independent ligand for the	1	U41806			+		+	-	
Lck SH2 domain p62 (P62) ubiquitin-conjugating enzyme E2 variant 1	2	U49278	+	+	+	+	+	+	
(UBE2V1) ubiquitin-conjugating enzyme E2 variant 2	1	X98091					_		
(UBE2V2) UBIQUITIN-	· 1	Q16781		<del>                                     </del>		<del> </del>			
CONJUGATING ENZYME E2-17 KD (UBIQUITIN- PROTEIN LIGASE)									
ubiquitin-conjugating enzyme E2B (RAD8 homolog) (UBE2B)		M74525	<b>.</b>	+	+	+		+	
ubiquitin-conjugating enzyme E2G 2 (homologous to yeast UBC7) (UBE2G2)	1	AF032456	+	+	+	+		+	
ubiquitin-conjugating enzyme E2H (homologous to yeast UBC8) (UBE2H)	1	Z29 <b>328</b>	+	+	+	+		+	
ubiquitin-conjugating enzyme E2L 1 (UBE2L1)	1	X92962		+	+			+	
ubiquitin-conjugating enzyme E2L 3 (UBE2L3)	3	AJ000519		+	+	+		+	·
ubiquitin-conjugating enzyme E2L 6 (UBE2L6)	4	AF031141		+	+	+	+	+	
ubiquitin-like 1 (sentrin) (UBL1)	2	U61397	+	+	+	+		+	

								•
2	X85019			-				
1	X92689			-			<u> </u>	
			ŀ					
					,			
			<b>†</b>	+	+		_	
		<u></u>				-		
1	U94592					,		
1	AC002310							
1.	AF070542							
		+	+	+	+	.+	+	
	-,	+			+	+		
74	S73591	+	+	+	+		+	high in heart
	S73591							
. 1	\$73591							
1								
		+	+		+			
2	X99050	·	+	.+.	+		+	
4	X71490		+	+	+	+	+	·
1	M63167	+	. +	+	+		+	
3	AJ132100		1.					
3	Z46389	+ .		+	+		+	
1	M59834						+	
1	S76992	+	+					
1	•	W	+	+		+		·
1	M29366						+.	
1	P13611							
1	M36196		+	+:	+		+	
	2 3 1 1 1 1 74 1 1 1 2 4 1	1 X92689  2 L24804  3 U57053  1 U94592  1 U94592  1 AC002310 1 AF070542 2 Z70223 1 AF070626 1 AF040966 1 D79984 74 S73591 1 S73591 1 S73591 1 S73591 1 S73591 1 X53461 2 X99050 4 X71490 1 M63167 3 AJ132100 3 Z46389 1 M59834 1 S76992 1 D10656 1 M29368	1 X92689  2 L24804 3 U57053 1 U94592 1 U94592 1 AC002310 1 AF070542 2 Z70223 1 AF070626 + 1 AF040966 1 D79984 + 74 S73591 + 1 S73591 1 S73591 1 S73591 1 S73591 1 X53461 + 2 X99050 4 X71490 1 M63167 + 3 AJ132100 3 Z46389 + 1 M59834 1 S76992 + 1 D10656 W 1 M29366	2 L24804 + 3 U57053 1 U94592 1 U94592 1 AC002310 1 AF070542 2 Z70223 1 AF070626 + + 1 AF040966 1 D79984 + + 74 S73591 + 1 S73591 1 S73591 1 S73591 1 M53461 + + 2 X99050 + 4 X71490 + 1 M63167 + + 3 AJ132100 3 Z46389 + 1 M59834 1 S76992 + + 1 D10656 W +	1 X92689  2 L24804 + + +  3 U57053   1 U94592   1 U94592   1 AF070542   2 Z70223   1 AF070626 + + + +  1 AF040966   1 D79984 + + + + + +  1 S73591 + + + +  1 S73591   1 S73591	1 X92689  2 L24804 + + + + + + + + + + + + + + + + + + +	1 X92689  2 L24804 + + + + + +   3 D57053	1 X92689  2 L24804

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vesicle-associated membrane protein 3 (cellubrevin) (VAMP3)	1	U6452 <b>0</b>							
v-fos FBJ murine osteosarcoma viral oncogene homolog (FOS)	26	K00650		+	+	+	+	+	high in aorta
v-los FBJ murine osteosarcoma viral oncogene homolog (FOS)	1	K00650							
(low match) villin 2 (ezrin) (VIL2)	1	X51521	+	+	+	. +		+	
villin-like protein	1 ·	D88154						٠.	
vimentin (VIM)	12	X56134		+	+	+	+	+	high in many libraries
1 ' ' 1		M33308						+	Ingil ill many ibranes
vinculin (VCL)	4			+	+	+		l	
vitamin A řesponsivě; cytoskeleton related (JWA)	6	AF070523		+	+	+		14.	
v-jun avian sarcoma virus 17 oncogene homolog (JUN)	2	U65928	+	+	+	+		+	
v-myb avian myeloblastosis viral oncogene homolog (MYB)	1	M15024			. +		*		
voltage-dependent anion channel 1 (VDAC1)	. 1	L06132	+	+	. +	+		+	
voltage-dependent anion channel 3 (VDAC3)	4	U90943		+	+	, <b>+</b>		+	
von Hippel-Lindau syndrome (VHL)	. 1	L15409		+	+	+		+	
von Willebrand factor (vWF) (low matched)	1	X06828							
v-raf murine sarcoma 3611 viral oncogene homolog 1 (ARAF1)	2	L24038	+	. +	+	+			
v-raf-1 murine leukemia viral oncogene homolog 1 (RAF1)	1	X03484	+	+	+	+		+.	
v-ral simian leukemia viral oncogene homolog B (ras related; GTP binding protein) (RALB)	3	M35416							
V-rel avian reticuloendotheliosis viral oncogene homolog A (nuclear factor of kappa light polypeptide gene		L19067		+	+	+	-	+	
enhancer in B-cells 3 (p65)) (RELA) v-yes-1 Yamaguchi	2	M16038	+	+		+		+	
sarcoma viral related oncogene homolog (LYN)		1110000						Ŀ	
WD repeat domain 1 (WDR1)	1	AB010427	*	_	*	•	_	Ľ	·
WDR1 (=AF020260)	1	AF020056		<u></u>			<u>L</u>		
WD-repeat protein (HAN11)	2	U94747		+	+			+	
Williams-Beuren syndrome chromosome region 1 (WBSCR1)	12	AF045555	+	+	+	+	+	+-	
Wiskott-Aldrich syndrome protein interacting protein (WASPIP)	4	X86019	+	*	+			+	
X (inactive)-specific transcript (XIST)	2	M97168							
xeroderma pigmentosum, complementation group C (XPC)	3	D21089	+	+	+	+			
XIAP associated factor-1	2	X996 <b>99</b>				+			
XIB	1	X90392		+	+		+	+	<del> </del>
X-linked anhidroitic ectodermal dysplasia	1	AF003528							

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X-ray repair	1	M30938	+	+	.+	+		+	high in spleen
complementing defective		•	·	·	l .		i		
repair in Chinese hamster	•				ł	l			
cells 5 (double-strand-	. •				l				
break rejoining: Ku autoantigen,	,		· .	l	ŀ				
80kD) (XRCC5)			٠.					ļ	
XRP2 protein	1	AJ007590		-	<b>├</b> ──	├		<del> </del> -	-
						<u> </u>			
yeloid differentiation	1	U84408		+	+	+		+	
primary response gene					l ·			l	
(88) (MYD88)			<u> </u>						,
zeta-chain (TCR)	1	L05148.	+	I		+			
associated protein kinase			·	1	1				
(70kD) (ZAP70)			<b>!</b>	L	i		L	<u> </u>	* * *
zeta-chain (TCR)	1	L05148			i				
associated protein kinase			1		١.		l .		,
(70kD) (ZAP70) (low			i		1		· '	ľ	
match)			<u> </u>		<u> </u>				
zinc finger protein	. 2	U69274	+	+	+	+		+	
(Hs.47371)					İ				
zinc finger protein	1	U69645	+	+	+	+	7	+	
(Hs.78765)					<u> </u>		<u> </u>	<u>L</u>	
zinc finger protein 10 (KOX	1	X78933							+ only
1) (ZNF10)			<u> </u>		<u> </u>	L	<u> </u>		
ZINC FINGER PROTEIN	1.	Q15973		1					
124 (HZF-16) (non-exact			l	1	1		l		<b>!</b> .
51%)							Ц.		<u> </u>
zinc finger protein 124	1	554641	l .	l			_		
(HZF-16) (ZNF124) (non-				Ι΄.			l	l	
exact, 78%)					L	L			
ZINC FINGER PROTEIN	1 -	P52736		1			1		
133		· · · · · · · · · · · · · · · · · · ·	<u></u>		<u> </u>	L			<u>l · </u>
zinc finger protein 136	1	U09367		1	+	+	Į.		
(clone pHZ-20) (ZNF136)		·			L		L		
zinc finger protein 140	1	U09368	İ	+		+	i	+	
(clone pHZ-39) (ZNF140)					L			<u> </u>	<u> </u>
zinc finger protein 140	1	AF060865		ĺ	ł				
(clone pHZ-39) (ZNF140)	· .			1	I				ļ .
(non-exact 59%)				<u> </u>	ļ	L		<u> </u>	l
zinc finger protein 140	1 1	U09368	1	1	l				1
(clone pHZ-39) (ZNF140)			· .	1	ļ		٠.		
(non-exact 73%)			<u> </u>	L	ļ	<u> </u>		<u> </u>	
zinc finger protein 140	1	S66508	1		1	٠.	l		1
(clone pHZ-39) (ZNF140)	,				ł		ŀ		
(non-exact 73%aa)			<u></u>		<u> </u>	Ŀ		<u> </u>	1
zinc finger protein 140	.1	U09368	•		Į.	l			1
(clone pHZ-39) (ZNF140)			ŀ			l		1	ĺ
(non-exact, 80%)		IMABER	ļ	<u> </u>	<u> </u>	<del>ا</del> .	<u> </u>		ļ
zinc finger protein 143	2	U09850	+	+	+	+	+	+	
(clone pHZ-1) (ZNF143)		LIAMBER	ļ	<u></u>	<b> </b>	<u> </u>	Ŀ	<b>-</b>	<u> </u>
zinc finger protein 143	1.	U09850	]		1	1		I	1
(clone pHZ-1) (ZNF143)		,			l			Į.	
(low match)		A)-BHBBZB	ļ	<u> </u>	<u> </u>	ļ	<u> </u>	<b> </b>	<u> </u>
zinc finger protein 148	1	AF039019	. +		1		l	1	
(pHZ-52) (ZNF148)		CANARE		<b></b>	Ļ—	Щ.	<u> </u>	<u> </u>	
ZINC FINGER PROTEIN	1	Q13105			1	1		l	1
151 (MIZ-1 PROTEIN) (low		· .			1	l	1	I	· ·
match)		DAKARE		<u> </u>	<u> </u>	ļ	<u> </u>	<u> </u>	
zinc finger protein 173	1	U09825	В, Т	+	+	ļ.	+	1	
(ZNF173)				Ь	<u> </u>	<b> </b>	<u> </u>	<u> </u>	
zinc finger protein 192	1 .	U57796					1		l
(ZNF192) (non-exact, 66%)			`			<u> </u>	<u> </u>		ļ
zinc finger protein 198	1	AJ224901		+	+	+	1	i	'
(ZNF198)						<u> </u>	<u> </u>	L	
zinc finger protein 2 (ZNF2)	1	X60152							i .
(low match)				<u> </u>			<u> </u>		<u> </u>
zinc finger protein 200	1	AF060866	:	+		+		1 _	. :
(ZNF200)		·				L_			
zinc finger protein 207	6	AF046001	+	+	+	+	+	+	high in prostate
(ZNF207)				<u> </u>					
zinc finger protein 216	2	AF062072	+	+	+	+		+	1
(ZNF216)		L	L			L		L	<u> </u>

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									•
zinc finger protein 217 (ZNF217)	1	AF041259	Tactiv	ated				+	
ZINC FINGER PROTEIN 22 (ZINC FINGER	1	P17026							
PROTEIN KOX15) (non- exact 58%)									
zinc finger protein 230		U95044		+	·				
(ZNF230) Zinc finger protein 239	1	L26914		+		+			
(ANF239) zinc finger protein 261	1	AB002383		+	+	+		+	
(ZNF261) zinc finger protein 262	1	AB007885		+-	+ .	+		+	
(ANF262) zinc finger protein 263	1 .	D88827		·				_	
(ZNF263) zinc tinger protein 264	1	   AB007872	<u> </u>	+	+	   +		14.11	
(ZNF264) ZINC FINGER PROTEIN	1	Q06730	·		·				
33A (ZINC FINGER	'	200730							
PROTEIN KOX31) (KIAA0065) (HA0946)									·
zinc finger protein 42 (myeloid-specific retinoic	1	M58297	+	.+	+	+		+	
cid- responsive) (ZNF42) zinc finger protein 43	1	X59244		·		_	7		
(HTF6) (ZNF43) (low match)									
zinc finger protein 43 (HTF6) (ZNF43) (non-	. 1	X59244							
exact, 54%) zinc finger protein 43	1 1	X59244							·
(HTF6) (ZNF43) (non- lexact, 71%)		X00244							
ZINC FINGER PROTEIN 43 (ZINC PROTEIN HTF6)	1	P28160							
(non-exact 67%) zinc finger protein 45 (a	1	L75847	<u> </u>						only found in testis
Kruppel-associated box		L/304/							only found in tesus
(KRAB) domain polypeptide) (ZNF45)									
ZINC FINGER PROTEIN 46 (ZINC FINGER	1	P24278							
	1	1							
PROTEIN KUP) (non-exact 62%)		<u> </u>	1			+		+	
62%) zinc finger protein 6	1	X56465		+	+	T		•	
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non-	1	X56465 X71623		+	+	<u> </u>		_	
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) zinc finger protein 76	1			+	+	+		+	
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non- exact, 67%) zinc finger protein 76 (expressed in testis) (ZNF76)	1	X71623 M91592							
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) zinc finger protein 76 (expressed in testis)	1	X71623							
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-	1	X71623 M91592							
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non- exact, 67%) zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non- exact 65%) zinc finger protein 84	1	X71623 M91592	T activated						
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) zinc finger protein 84 (HPF2) (ZNF84) zinc finger protein 85	1	X71623 M91592 P51522	T activated	+	+			+	
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non- exact, 67%) zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non- exact 65%) zinc finger protein 84 (HPF2) (ZNF84) zinc finger protein 85 (ZNF85)) zinc finger protein 9 (ZNF9)	1 1 2 5	M91592 P51522 M27878 U35376 M28372	T activated	+	+	+	+	+	
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non- exact, 67%) zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN 65%) zinc finger protein 84 (HPF2) (ZNF84) zinc finger protein 85 (ZNF85)) zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN HTF34) (non- exact 70%)	1 1 2 5 1	X71623 M91592 P51522 M27878 U35376	T activated	+	+	+	+	+	
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non- exact, 67%) zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non- exact 65%) zinc finger protein 84 (HPF2) (ZNF84) zinc finger protein 85 (ZNF85)) zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN HTF34) (non-	1 1 2 5 1	M91592 P51522 M27878 U35376 M28372	T activated	+	+	+	+	+	
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non- exact, 67%) zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non- exact 65%) zinc finger protein 84 (HPF2) (ZNF84) zinc finger protein 85 (ZNF85)) zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN HTF34) (non- exact 70%) zinc finger protein C2H2-25	1 1 2 5 1	M91592 P51522 M27878 U35376 M28372 P35789	Tactivated	+ + +	+ + +	+	+	+	
62%) zinc finger protein 6 (CMPX1) (ZNF6) zinc finger protein 74 (Cos52) (ZNF74) (non-exact, 67%) zinc finger protein 76 (expressed in testis) (ZNF76) ZINC FINGER PROTEIN 83 (ZINC FINGER PROTEIN HPF1) (non-exact 65%) zinc finger protein 84 (HPF2) (ZNF84) zinc finger protein 85 (ZNF85)) zinc finger protein 9 (ZNF9) ZINC FINGER PROTEIN 93 (=ZINC FINGER PROTEIN HTF34) (non-exact 70%) zinc finger protein C2H2-25 (ZNF25) zinc finger protein clone	1 1 2 5 1	M91592 P51522 M27878 U35376 M28372 P35789 U38904	T activated	+ + +	+ + +	+	+	+	blood only

ZINC FINGER PROTEIN HRX (ALL-1) (71%a.a.)	1	Q03164						,	 =	
zinc finger protein HZF4	1	X78927								
zinc finger protein RIZ	1 -	D45132	• +	+	+	+	+			
zinc finger protein, subfamily 1A, 1 (Ikaros) (LYF1)	1	U40462	+					·	 	
zinc finger protein, subfamily 1A, 1 (Ikaros) (LYF1) (low match)	1	. U40462								. •
zinc finger transcriptional regulator (GOS24)	1	M92844								
zinc-finger helicase (hZFH)	2	U91543	+	+	+	+	+			
Zn-15 related zinc finger protein (rff)	1	U22377		+	+	+		•	 	
Zn-15 related zinc finger protein (rlf) (non-exact 56%)	. 1	U22377								
ZNF80-linked ERV9 long terminal repeat	1	X83497								
ZW10 (Drosophila) homolog, centromere/kinetochore protein (ZW10)	2	U54996		+						
zyxin (ZYX)	4	X95735		"						

Column 1: List of unique genes derived from 6,283 known ESTs from blood cells.

Column 2: Number of genes found in randomly sequenced ESTs from blood cells.

Column 3: Accession number. Column 4: "+" indicates the presence of the unique gene in publicly available cDNA libraries of blood (Bl), brain (Br), heart (H), kidney (K), liver (Li) and lung (Lu). \*\*Comparison to previously identified tissue-specific genes was determined using the GenBank of the National Centre of Biotechnology Information (NCBI) Database.

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## Discussion

Every cell and tissue comprising the human body share the necessary genetic information required to maintain cellular homeostasis. These "housekeeping" genes function in basic cellular maintenance, including energy metabolism and cellular structure in all cell types. However, in certain situations, even the housekeeping genes show altered expression. Thus, it is necessary to define the use of these genes as internal controls from one investigation to another. Current results from the human blood cell EST database indicate that over 50% of the transcripts are

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widely expressed throughout the human body. Most of the cell or tissue specific genes are also detectable in blood cells by RT-PCR analysis.

For example, isoformic myosin heavy chain genes are known to be generally expressed in cardiac muscle tissue. In the rodent, the βMyHC gene is only highly expressed in the fetus and in diseased states such as overt cardiac hypertrophy, heart failure and diabetes; the αMyHC gene is highly expressed shortly after birth and continues to be expressed in the adult heart. In the human, however, βMyHC is highly expressed in the ventricles from the fetal stage through adulthood. This highly expressed βMyHC, which harbours several mutations, has been demonstrated to be involved in familial hypertrophic cardiomyopathy (Geisterfer-Lowrance *et al.* 1990). It was reported that mutations of βMyHC can be detected by PCR using blood lymphocyte DNA (Ferrie et al., 1992). Most recently, it was also demonstrated that mutations of the myosin-binding protein C in familial hypertrophic cardiomyopathy can be detected in the DNA extracted from lymphocytes (Niimura *et al.*, 1998).

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Similarly, APP and APC, which are known to be tissue specific and predominantly expressed in the brain and intestinal tract, are also detectable in the transcripts of blood. These cell- or tissue-specific transcripts are not detectable by Northern blot analysis. However, the low number of transcript copies can be detected by RT-PCR analysis. These findings strongly demonstrate that genes preferentially expressed in specific tissues can be detected by a highly sensitive RT-PCR assay. In recent years, evidence has been obtained to indicate that expression of cell or tissue-restricted genes can be detected in the peripheral blood of patients with metastatic transitional cell carcinoma (Yuasa et al. 1998) and patients with prostate cancer (Gala et al. 1998).

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Atrial natriuretic factor (ANF) and zinc finger protein (ZFP), which are known to be highly expressed in heart tissue biopsies and in the plasma of heart failure patients, are also detectable in the transcripts of blood. Differential expression of zinc finger protein among the normal, diabetic and asymptomatic preclinical

subjects may have additional value as a prophylactic "early warning system". On a related note, there is now more attention/discussion in the cardiovascular disease field being focused on Syndrome X, loosely defined as a continuum of hypertension, increasing sugar levels, diabetes, kidney failure, culminating in heart failure, with the possibility of stroke and heart attack at any time in the continuum. The early identification of patients at risk of organ failure has been a challenge to the medical community for some time and the present method has the potential of resolving or, at least, ameliorating this challenge.

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The present invention demonstrates that a simple drop of blood may be used to determine the quantitative expression of various mRNAs that reflect the health/disease state of the subject through the use of RT-PCR analysis. This entire process takes about three hours or less. The single drop of blood may also be used for multiple RT-PCR analyses. There is no need for large samples and/or costly and time-consuming separation of cell types within the blood for this method as compared to the methods described by Kimoto (1998) and Chelly et al. (1989; 1988). It is believed that the present finding can potentially revolutionize the way that diseases are detected, diagnosed and monitored because it provides a non-invasive, simple, highly sensitive and quick screening for tissue-specific transcripts. The transcripts detected in whole blood have potential as prognostic or diagnostic markers of disease, as they reflect disturbances in homeostasis in the human body. Delineation of the sequences and/or quantitation of the expression levels of these marker genes by RT-PCR will allow for an immediate and accurate diagnostic/prognostic test for disease or to assess the efficacy and monitor a particular therapeutic.

In addition to RT-PCR, other methods of amplifying may also be used for the purpose of measuring/quantitating tissue-specific transcripts in human blood. For example, mass spectrometry may be used to quantify the transcripts (Koster et al., 1996; Fu et al., 1998). The application of presently disclosed method for detecting tissue-specific transcripts in blood does not restrict to subjects undergoing course of

therapy or treatment, it may also be used for monitoring a patient for the onset of overt symptoms of a disease. Furthermore, the present method may be used for detecting any gene transcripts in blood. A kit for diagnosing, prognosing or even predicting a disease may be designed using gene-specific primers or probes derived from a whole blood sample for a specific disease and applied directly to a drop of blood. A cDNA library specific for a disease may be generated from whole blood

The following references were cited herein:

Claudio JO et al. (1998). Genomics 50:44-52.

10 Chelly J et al. (1989). Proc. Nat. Acad. Sci. USA. 86:2617-2621.

Chelly J et al. (1988). Nature 333:858-860.

Drews J & Ryser S (1997). Nature Biotech. 15:1318-9.

Ferrie RM et al. (1992). Am. J. Hum. Genet. 51:251-62.

Fu D-J et al. (1998). Nat. Biotech 16: 381-4.

15 Gala JL et al. (1998). Clin. Chem. 44(3):472-81.

Geisterfer-Lowrance AAT et al. (1990). Cell 62:999-1006.

Groden J et al. (1991). Cell 66:589-600.

Hwang DM et al. (1997). Circulation 96:4146-4203.

Jandreski MA & Liew CC (1987). Hum. Genet. 76:47-53.

20 Jin O et al. (1990). Circulation 82:8-16

Kimoto Y (1998). Mol. Gen. Genet 258:233-239.

Koster M et al. (1996). Nat. Biotech 14: 1123-8.

Liew & Jandreski (1986). Proc. Nat. Acad. Sci. USA. 83:3175-3179

Liew CC et al. (1990). Nucleic Acids Res. 18:3647-3651.

25 Liew CC (1993). J Mol. Cell. Cardiol. 25:891-894

Liew CC et al. (1994). Proc. Natl. Acad. Sci. USA. 91:10645-10649.

Liew et al. (1997). Mol. and Cell. Biochem. 172:81-87.

Niimura H et al. (1998). New Eng. J. Med. 338:1248-1257.

Ogawa M (1993). Blood 81:2844-2853.

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Santoro IM & Groden J (1997). Cancer Res. 57:488-494.

Yuasa T et al. (1998). Japanese J. Cancer Res. 89:879-882.

Any patents or publications mentioned in this specification are indicative of the levels of those skilled in the art to which the invention pertains. Further, these patents and publications are incorporated by reference herein in their entirety to the same extent as if each individual publication was specifically and individually indicated to be incorporated by reference.

One skilled in the art will appreciate readily that the present invention is well adapted to carry out the objects and obtain the ends and advantages mentioned, as well as those objects, ends and advantages inherent herein. The present examples, along with the methods, procedures, treatments, molecules, and specific compounds described herein are presently representative of preferred embodiments, are exemplary, and are not intended as limitations on the scope of the invention. Changes therein and other uses will occur to those skilled in the art which are encompassed within the spirit of the invention as defined by the scope of the claims.

## WO 00/40749 WHAT IS CLAIMED IS:

- 1. A method for detecting expression of a gene in blood from a subject, comprising the steps of:
  - a) quantifying RNA from a subject blood sample; and
- b) detecting expression of said gene in the quantified RNA, wherein the expression of said gene in said quantified RNA indicates expression of said gene in the subject blood.
- The method of claim 1, wherein the quantification is performed by mass spectrometry.
  - 3. A method for detecting expression of one or more genes in blood from a subject, comprising the steps of:

a) obtaining a subject blood sample;

- b) extracting RNA from said blood sample;
- c) amplifying said RNA;
- d) generating expressed sequence tags from the amplified RNA product; and
- 20 e) detecting expression of said genes in the expressed sequence tags, wherein the expression of said genes in said expressed sequence tags indicates expression of said genes in the subject blood.
- 4. The method of claim 3, wherein said genes are non-cancer-25 associated genes.
  - 5. The method of claim 3, wherein said genes are tissue-specific genes.

	:	6.	The	method	of	claim	3,	wherein	said	subject	is	a	fetus,	an
	:		4							•			•	
embryo,	, a chi	ld, an ad	lult o	r a non-h	um	an anii	nal	•						

- 7. The method of claim 3, wherein the amplification is performed by RT-PCR.
- 8. The method of claim 7, wherein said RT-PCR utilizes primers selected from the group consisting of random sequence primers and gene-specific primers.
  - 9. A method for detecting expression of one or more genes in blood from a subject, comprising the steps of:
    - a) obtaining a subject blood sample;
    - b) extracting DNA fragment(s) from said blood sample;
    - c) amplifying said DNA fragment(s); and
  - d) detecting expression of said genes in the amplified DNA product, wherein the expression of said genes in said amplified DNA product indicates expression of said genes in the subject blood.

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- 10. A method for monitoring a course of therapeutic treatment in an individual, comprising the steps of:
  - a) obtaining a blood sample from said individual;
  - b) extracting RNA from said blood sample;

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- c) amplifying said RNA;
- d) generating expressed sequence tags from the amplified RNA product; and

e) detecting expression of genes in said expressed sequence tags, wherein the expression of said genes is associated with the effect of said therapeutic treatment; and

- f) repeating steps a)-e), wherein the course of said therapeutic treatment is monitored by detecting the change of expression of said genes in the expressed sequence tags.
  - 11. The method of claim 10, wherein the amplification is performed by RT-PCR.

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- 12. The method of claim 11, wherein the change of expression of said genes in the expressed sequence tags is monitored by sequencing the expressed sequence tags and comparing the resulting sequences at various time points.
- 13. The method of claim 11, wherein the change of expression of said genes in the expressed sequence tags is monitored by performing single nucleotide polymorphism analysis and detecting the variation of a single nucleotide in the expressed sequence tags at various time points.
- 20 14. The method of claim 10, wherein said individual is monitored for the onset of overt symptoms of a disease, and wherein the expression of said genes is associated with the onset of said symptoms.
- 15. A method for diagnosing a disease in a test subject, comprising
  25 the steps of:
  - a) generating a cDNA library for said disease from a whole blood sample from a normal subject;

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- b) generating expressed sequence tag (EST) profile from the normal subject cDNA library;
- c) generating a cDNA library for said disease from a whole blood sample from a test subject;
  - d) generating EST profile from the test subject cDNA library; and
- e) comparing the test subject EST profile to the normal subject EST profile, wherein if said test subject EST profile differs from said normal subject EST profile, said test subject might be diagnosed with said disease.
- 16. A kit for diagnosing, prognosing or predicting a disease, comprising:
- a) gene-specific primers; wherein said primers are designed in such a way that the sequences of said primers contain the opposing ends of two adjacent exons for the specific gene with the intron sequence excluded; and
  - b) a carrier, wherein said carrier immobilizes said primer(s).
- 17. The kit of claim 16, wherein said gene-specific primer(s) are selected from the group consisting of insulin-specific primers, atrial natriuretic factor-specific primers, zinc finger protein gene-specific primers, beta-myosin heavy chain gene-specific primers, amyloid precurser protein gene-specific primers, and adenomatous polyposis-coli protein gene-specific primers.
- 18. The kit of claim 17, wherein the sequences of said genespecific primers are selected from the group consisting of SEQ ID Nos. 1 and 2, and SEQ ID Nos. 5 and 6.
- 19. A method for diagnosing, prognosing or predicting a disease in a test subject, comprising the step of:

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applying the kit of claim 16 to a test subject whole blood sample, wherein quantitative expression levels of specific genes associated with said disease are detected and compared to the levels of said specific genes expressed in a normal subject, therefore, said disease may be diagnosed, prognosed or predicted.

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20. The method of claim 19, wherein said method is used for monitoring a course of therapeutic treatment or monitoring the onset of overt symptoms of said disease.

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comprising:

- 21. A kit for diagnosing, prognosing or predicting a disease,
- a) probes derived from a whole blood sample for a specific disease; and
  - b) a carrier, wherein said carrier immobilizes said probes.

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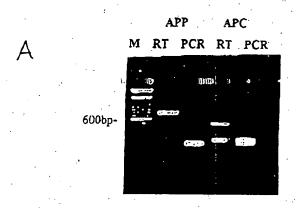
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22. A method for diagnosing, prognosing or predicting a disease in a test subject, comprising the step of:

applying the kit of claim 21 to a test subject whole blood sample, wherein quantitative expression levels of specific genes associated with said disease are detected and compared to the levels of said specific genes expressed in a normal subject, therefore, said disease may be diagnosed, prognosed or predicted.

- 23. The method of claim 22, wherein said method is used for monitoring a course of therapeutic treatment or monitoring the onset of overt symptoms of said disease.
- 24. A cDNA library specific for a disease, wherein said cDNA library is generated from whole blood samples.



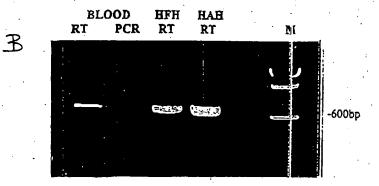
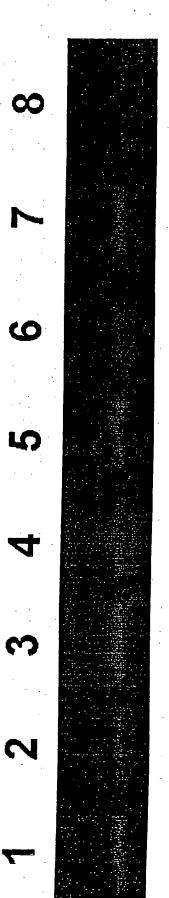


FIGURE 1 1/7 WO 00/40749 PCT/CA00/00005



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FIGURE 2

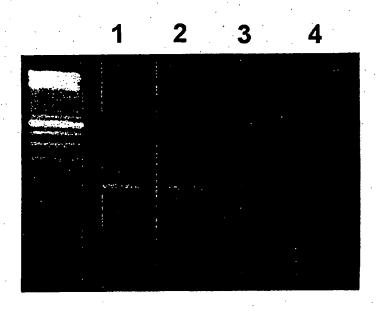


FIGURE 3 3/7 WO 00/40749 PCT/CA00/00005

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ZFP
GADH

INS

FIGURE 4 4/7

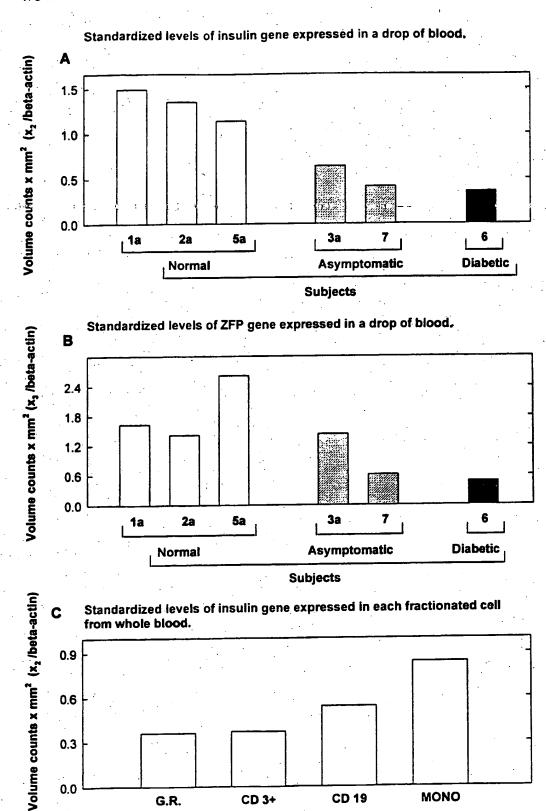


FIGURE 5

Fractionated cell type

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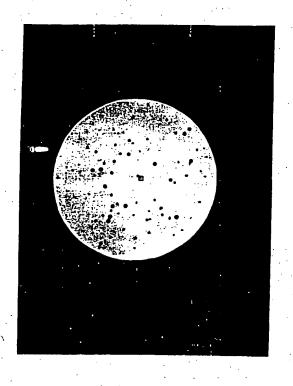
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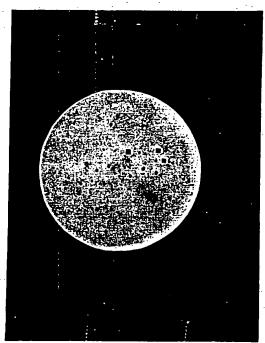
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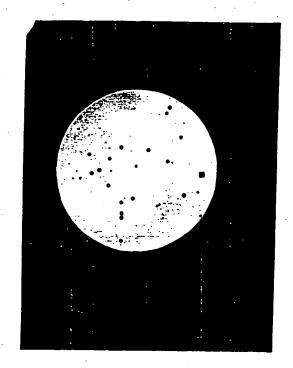
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**CD 3+** 

G.R.







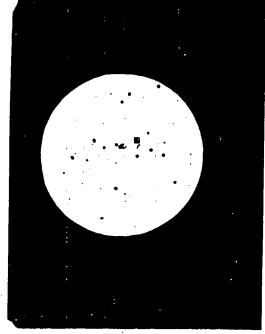


FIGURE 6 6/7

Total: 13,283 ESTs Known: 6,283 Mitochondrial: 405

Ribosome: 498 Repeat: 868 Mis.: 156 Novel: 2,718

Human Blood

Cell Division

Human Fetal Heart

■Cell Signalling/Communication □ Cell structure/Motility

**™** 5% **■** 8%

**22**%

Gene/Protein expression □Cell/organism defense

%9□

■ Metabolism

%9**■** 

■ Unclassified

□26%

**■**29%

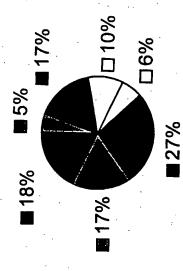


FIGURE 7

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Inter inal Application No PCT/CA 00/00005

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

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